

STN search for 10765,797

FULL ESTIMATED COST	19.10	255.71
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DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE	TOTAL
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	ENTRY	SESSION
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STN INTERNATIONAL LOGOFF AT 13:16:01 ON 24 FEB 2005

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NEWS	1		Web Page URLs for STN Seminar Schedule - N. America
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NEWS	3	SEP 01	New pricing for the Save Answers for SciFinder Wizard within STN Express with Discover!
NEWS	4	OCT 28	KOREAPAT now available on STN
NEWS	5	NOV 30	PHAR reloaded with additional data
NEWS	6	DEC 01	LISA now available on STN
NEWS	7	DEC 09	12 databases to be removed from STN on December 31, 2004
NEWS	8	DEC 15	MEDLINE update schedule for December 2004
NEWS	9	DEC 17	ELCOM reloaded; updating to resume; current-awareness alerts (SDIs) affected
NEWS	10	DEC 17	COMPUAB reloaded; updating to resume; current-awareness alerts (SDIs) affected
NEWS	11	DEC 17	SOLIDSTATE reloaded; updating to resume; current-awareness alerts (SDIs) affected
NEWS	12	DEC 17	CERAB reloaded; updating to resume; current-awareness alerts (SDIs) affected
NEWS	13	DEC 17	THREE NEW FIELDS ADDED TO IFIPAT/IFIUDB/IFICDB
NEWS	14	DEC 30	EPFULL: New patent full text database to be available on STN
NEWS	15	DEC 30	CAPLUS - PATENT COVERAGE EXPANDED
NEWS	16	JAN 03	No connect-hour charges in EPFULL during January and February 2005
NEWS	17	JAN 26	CA/CAPLUS - Expanded patent coverage to include the Russian Agency for Patents and Trademarks (ROSPATENT)
NEWS	18	FEB 10	STN Patent Forums to be held in March 2005
NEWS	19	FEB 16	STN User Update to be held in conjunction with the 229th ACS National Meeting on March 13, 2005
NEWS EXPRESS			JANUARY 10 CURRENT WINDOWS VERSION IS V7.01a, CURRENT MACINTOSH VERSION IS V6.0c(ENG) AND V6.0Jc(JP), AND CURRENT DISCOVER FILE IS DATED 10 JANUARY 2005
NEWS HOURS			STN Operating Hours Plus Help Desk Availability
NEWS INTER			General Internet Information
NEWS LOGIN			Welcome Banner and News Items

STN search for 10765,797

NEWS PHONE      Direct Dial and Telecommunication Network Access to STN  
NEWS WWW        CAS World Wide Web Site (general information)

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\* \* \* \* \* STN Columbus \* \* \* \* \*

FILE 'HOME' ENTERED AT 08:43:25 ON 25 FEB 2005

=> File caplus

COST IN U.S. DOLLARS

SINCE FILE

TOTAL

ENTRY

SESSION

FULL ESTIMATED COST

0.21

0.21

FILE 'CAPLUS' ENTERED AT 08:43:35 ON 25 FEB 2005

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FILE COVERS 1907 - 25 Feb 2005 VOL 142 ISS 9

FILE LAST UPDATED: 23 Feb 2005 (20050223/ED)

This file contains CAS Registry Numbers for easy and accurate substance identification.

=> e timpe/inv

'INV' IS NOT A VALID EXPAND FIELD CODE FOR FILE 'CAPLUS'

The indicated field code is not available for EXPAND in this file. To see a list of valid EXPAND field codes, enter HELP SFIELDS at an arrow prompt (=>).

=> e timpe/au

E1	1	TIMPAU T/AU
E2	2	TIMPAU TIT/AU
E3	0 -->	TIMPE/AU
E4	5	TIMPE C/AU
E5	7	TIMPE CARSTEN/AU
E6	1	TIMPE CHRISTIAN/AU
E7	1	TIMPE ERIKA D/AU
E8	1	TIMPE ERIN M/AU
E9	1	TIMPE GERALD/AU

STN search for 10765,797

E10	7	TIMPE H/AU
E11	126	TIMPE H J/AU
E12	19	TIMPE HANS J/AU

=> e

E13	170	TIMPE HANS JOACHIM/AU
E14	1	TIMPE HANS JOCHIM/AU
E15	1	TIMPE HANZ JOACHIM/AU
E16	1	TIMPE HARALD/AU
E17	2	TIMPE JENNIFER M/AU
E18	1	TIMPE JOACHIM HANS/AU
E19	1	TIMPE KLAUS P/AU
E20	2	TIMPE L/AU
E21	1	TIMPE L C/AU
E22	1	TIMPE LESLIE/AU
E23	12	TIMPE LESLIE C/AU
E24	1	TIMPE LESLIE CHARLES/AU

=> s e10-15

	7	"TIMPE H"/AU
	126	"TIMPE H J"/AU
	19	"TIMPE HANS J"/AU
	170	"TIMPE HANS JOACHIM"/AU
	1	"TIMPE HANS JOCHIM"/AU
	1	"TIMPE HANZ JOACHIM"/AU
L1	324	("TIMPE H"/AU OR "TIMPE H J"/AU OR "TIMPE HANS J"/AU OR "TIMPE HANS JOACHIM"/AU OR "TIMPE HANS JOCHIM"/AU OR "TIMPE HANZ JOACHIM"/AU)

=> s l1 and nip

	3996	NIP
L2	0	L1 AND NIP

=> s l1 and mechanistical

	43	MECHANISTICAL
L3	1	L1 AND MECHANISTICAL

=> d

L3 ANSWER 1 OF 1 CAPLUS COPYRIGHT 2005 ACS on STN  
AN 1996:457500 CAPLUS  
DN 125:208140  
TI Photochemistry of 3-benzoyl- $\Delta^2$ -isoxazolines and 2-phenyl-3-benzoylisoxazolidines  
AU Maiwald, B.; Israel, G.; **Timpe, H.-J.**  
CS Institut fur Org. Chemie, Universitat Halle-Wittenberg, Merseburg, 06217, Germany  
SO Journal of Information Recording (1996), 23(1-2, 14th Conference Photochemistry Section of the Society of German Chemists, 1995, Pt. 2), 39-42  
CODEN: JIREFL; ISSN: 1025-6008  
PB Gordon & Breach  
DT Journal  
LA English

=> s nip15

L4	0	NIP15
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=> s nip

STN search for 10765,797

L5 3996 NIP

=> s nip and 15  
3996 NIP  
1566247 15

L6 358 NIP AND 15

=> s 16 and kodak  
2623 KODAK

L7 0 L6 AND KODAK

=> s 16 and conf?  
1431501 CONF?

L8 11 L6 AND CONF?

=> d 11

L8 ANSWER 11 OF 11 CAPLUS COPYRIGHT 2005 ACS on STN  
AN 1980:100371 CAPLUS  
DN 92:100371  
TI Vaporization behavior of MnP(s) and the thermodynamics of the  
manganese-phosphorus system  
AU Myers, Clifford E.; Jung, Elyse D.; Patterson, Elizabeth L.  
CS Dep. Chem., State Univ. New York, Binghamton, NY, 13901, USA  
SO Inorganic Chemistry (1980), 19(2), 532-4  
CODEN: INOCAJ; ISSN: 0020-1669  
DT Journal  
LA English

=> d 1

L8 ANSWER 1 OF 11 CAPLUS COPYRIGHT 2005 ACS on STN  
AN 2004:217526 CAPLUS  
TI Saving all pan of paper machine [Machine Translation].  
IN Makino, Tetsuo; Fujiwara, Haruyoshi  
PA Mitsubishi Heavy Industries, Ltd., Japan  
SO Jpn. Kokai Tokkyo Koho, 19 pp.  
CODEN: JKXXAF

DT Patent  
LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2004084122	A2	20040318	JP 2002-247218	20020827
PRAI	JP 2002-247218		20020827		

=> d his

(FILE 'HOME' ENTERED AT 08:43:25 ON 25 FEB 2005)

FILE 'CAPLUS' ENTERED AT 08:43:35 ON 25 FEB 2005  
E TIMPE/AU

L1 324 S E10-15  
L2 0 S L1 AND NIP  
L3 1 S L1 AND MECHANISTICAL  
L4 0 S NIP15  
L5 3996 S NIP  
L6 358 S NIP AND 15

STN search for 10765,797

L7 0 S L6 AND KODAK  
L8 11 S L6 AND CONF?

=> s 11 and digital and plate  
38334 DIGITAL  
308909 PLATE

L9 3 L1 AND DIGITAL AND PLATE

=> d all 1-3

L9 ANSWER 1 OF 3 CAPLUS COPYRIGHT 2005 ACS on STN  
AN 2003:217927 CAPLUS  
DN 138:245665  
ED Entered STN: 20 Mar 2003  
TI Thermal digital lithographic printing plate  
IN Savariar-Hauck, Celin; Shimazu, Ken-Ichi; Timpe, Hans-Joachim;  
Patel, Jayanti; Huang, Jianbing  
PA Kodak Polychrome Graphics, LLC, USA  
SO U.S., 16 pp., Cont.-in-part of U.S. 6,358,669.  
CODEN: USXXAM  
DT Patent  
LA English  
IC ICM G03F007-038  
NCL 430270100; 430271100; 430273100; 430281100; 430283100; 430284100;  
430286100; 430302000; 430348000; 430944000  
CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other  
Reprographic Processes)  
Section cross-reference(s): 38

FAN.CNT 6

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 6534238	B1	20030318	US 2000-592895	20000613
	US 6352812	B1	20020305	US 1999-301866	19990429
	EP 1506856	A2	20050216	EP 2004-78162	19990608
	R: BE, DE, ES, FR, GB, IT, NL, SE				
	EP 1506857	A2	20050216	EP 2004-78163	19990608
	R: BE, DE, ES, FR, GB, IT, NL, SE				
	US 6358669	B1	20020319	US 1999-469489	19991222
	WO 2001096119	A1	20011220	WO 2000-US33605	20001212
	W: BR, JP				
	RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR				
	EP 1303399	A1	20030423	EP 2000-986322	20001212
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI, CY, TR				
	BR 2000017252	A	20030527	BR 2000-17252	20001212
	JP 2004503806	T2	20040205	JP 2002-510282	20001212
PRAI	US 1998-90300P	P	19980623		
	US 1999-301866	A2	19990429		
	US 1999-469489	A2	19991222		
	EP 1999-928429	A3	19990608		
	US 2000-592895	A	20000613		
	WO 2000-US33605	W	20001212		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
US 6534238	ICM	G03F007-038
	NCL	430270100; 430271100; 430273100; 430281100; 430283100; 430284100; 430286100; 430302000; 430348000; 430944000
US 6534238	ECLA	B41C001/10A

STN search for 10765,797

US 6352812 ECLA B41C001/10A  
US 6358669 ECLA B41C001/10A  
JP 2004503806 FTERM 2H025/AA04; 2H025/AB03; 2H025/AC08; 2H025/AD03;  
2H025/BE01; 2H025/CB28; 2H025/CB29; 2H025/CB45;  
2H025/CC11; 2H025/DA17; 2H025/DA31; 2H025/DA36;  
2H025/FA10; 2H025/FA17; 2H096/AA06; 2H096/BA10;  
2H096/CA06; 2H096/EA04; 2H096/EA23; 2H096/GA08;  
2H096/KA06

AB A thermally imageable element, useful as a lithog. printing **plate** precursor is disclosed. The element comprises a hydrophilic substrate; an underlayer comprising a first polymeric material; and an ink-receptive top layer comprising a second polymeric material and a solubility-suppressing component. The solubility-suppressing component may be a sep. dissoln. inhibitor compound and/or the second polymeric material may also function as a solubility-suppressing component. On thermal exposure the exposed regions of the top layer becomes more readily soluble in an aqueous developer, allowing the developer to remove the top layer and reveal the surface of the hydrophilic substrate. The lithog. printing **plate** thus formed has excellent properties, including the absence of sludging of the developer.

ST thermal **digital** lithog printing **plate**  
IT Lithographic plates  
(thermal **digital** lithog. printing **plate**)  
IT 134127-48-3, ADS-830A  
RL: TEM (Technical or engineered material use); USES (Uses)  
(ADS-830A, Trump IR; thermal **digital** lithog. printing **plate**)  
IT 2390-59-2, C.I. 42600  
RL: TEM (Technical or engineered material use); USES (Uses)  
(C.I. 42600; thermal **digital** lithog. printing **plate**)  
IT 52229-50-2, GANTREZ AN119  
RL: TEM (Technical or engineered material use); USES (Uses)  
(GANTREZ AN119; thermal **digital** lithog. printing **plate**)  
IT 9016-83-5, LB 744  
RL: TEM (Technical or engineered material use); USES (Uses)  
(LB-744; thermal **digital** lithog. printing **plate**)  
IT 184348-68-3, PMP234  
RL: TEM (Technical or engineered material use); USES (Uses)  
(PMP234; thermal **digital** lithog. printing **plate**)  
IT 69432-40-2, Triazine B  
RL: TEM (Technical or engineered material use); USES (Uses)  
(Triazine B; thermal **digital** lithog. printing **plate**)  
IT 69432-43-5, Triazine E  
RL: TEM (Technical or engineered material use); USES (Uses)  
(Triazine E; thermal **digital** lithog. printing **plate**)  
IT 603-48-5 86003-21-6, ACTILANE 20 141634-00-6, Acrylonitrile-N-(p-aminosulfonylphenyl)methacrylamide-methyl methacrylate copolymer  
153853-28-2, SPN 400 161279-62-5, JONCRYL 683 253272-47-8, Nega 107  
321963-43-3, Methacrylamide-methacrylic acid-N-phenylmaleimide copolymer  
381213-54-3, PD-140 381213-71-4, Jagotex MA2814/3  
RL: TEM (Technical or engineered material use); USES (Uses)  
(thermal **digital** lithog. printing **plate**)

RE.CNT 54 THERE ARE 54 CITED REFERENCES AVAILABLE FOR THIS RECORD  
RE  
(1) Anon; GB 1245924 1971

STN search for 10765,797

- (2) Anon; GB 1546633 1979 CAPLUS
- (3) Anon; EP 0678380 1995
- (4) Anon; EP 0784233 1997 CAPLUS
- (5) Anon; JP 09034110 1997 CAPLUS
- (6) Anon; WO 9707986 1997 CAPLUS
- (7) Anon; WO 9739894 1997 CAPLUS
- (8) Anon; EP 0823327 1998 CAPLUS
- (9) Anon; EP 0864419 1998
- (10) Anon; EP 0864420 1998 CAPLUS
- (11) Anon; EP 0901902 1999 CAPLUS
- (12) Anon; EP 0909657 1999 CAPLUS
- (13) Anon; EP 0919868 A1 1999 CAPLUS
- (14) Anon; EP 0940266 1999 CAPLUS
- (15) Anon; EP 0943451 1999 CAPLUS
- (16) Anon; WO 9911458 1999 CAPLUS
- (17) Anon; WO 9921715 1999 CAPLUS
- (18) Aoshima; US 5141838 A 1992 CAPLUS
- (19) Aoshima; US 5346975 A 1994 CAPLUS
- (20) Bassett; US 5145763 A 1992 CAPLUS
- (21) Baumann; US 4163097 A 1979 CAPLUS
- (22) Baumann; US 5700619 A 1997 CAPLUS
- (23) Blanchet-Fincher; US 6066434 A 2000
- (24) Brinckman; US 3645733 A 1972 CAPLUS
- (25) Deroover; US 6004728 A 1999 CAPLUS
- (26) Grunwald; US 5641608 A 1997 CAPLUS
- (27) Haley; US 5340699 A 1994 CAPLUS
- (28) Hase; US 5609993 A 1997 CAPLUS
- (29) Imai; US 5202221 A 1993 CAPLUS
- (30) Ishizuka; US 5731127 A 1998 CAPLUS
- (31) Kamiya; US 5112743 A 1992 CAPLUS
- (32) Kawauchi; US 6143464 A 2000 CAPLUS
- (33) Kubo; US 4308368 A 1981 CAPLUS
- (34) Lewis; US 5493971 A 1996
- (35) Nguyen; US 6060217 A 2000 CAPLUS
- (36) Parsons; US 6280899 B1 2001 CAPLUS
- (37) Patel; US 6352811 B1 2002 CAPLUS
- (38) Savariar-Hauck; US 6358669 B1 2002 CAPLUS
- (39) Sheriff; US 5858626 A 1999 CAPLUS
- (40) Shimazu; US 6294311 B1 2001 CAPLUS
- (41) Shimazu; US 6352812 B1 2002 CAPLUS
- (42) Takahashi; US 5569573 A 1996 CAPLUS
- (43) Takeda; US 5858604 A 1999 CAPLUS
- (44) Toyama; US 4687727 A 1987 CAPLUS
- (45) Urano; US 6251559 B1 2001 CAPLUS
- (46) Verburgh; US 5536619 A 1996 CAPLUS
- (47) Vermeersch; US 6022667 A 2000 CAPLUS
- (48) Vermeersch; US 6083663 A 2000 CAPLUS
- (49) Vermeersch; US 6096481 A 2000 CAPLUS
- (50) Walls; US 4665124 A 1987 CAPLUS
- (51) Wang; US 5529891 A 1996 CAPLUS
- (52) West; US 5705308 A 1998 CAPLUS
- (53) West; US 5705322 A 1998 CAPLUS
- (54) West; US 6060222 A 2000 CAPLUS

L9 ANSWER 2 OF 3 CAPLUS COPYRIGHT 2005 ACS on STN  
AN 2002:213732 CAPLUS  
DN 136:270600  
ED Entered STN: 21 Mar 2002  
TI Thermal **digital** lithographic printing plate  
IN Savariar-Hauck, Celin; Shimazu, Ken-ichi; Timpe, Hans-Joachim;

STN search for 10765,797

Patel, Jayanti; Huang, Jianbing  
PA Kodak Polychrome Graphics LLC, USA  
SO U.S., 13 pp., Cont.-in-part of U.S. Ser. No. 301,866.  
CODEN: USXXAM  
DT Patent  
LA English  
IC ICM G03F007-09  
NCL 430273100  
CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other  
Reprographic Processes)  
FAN.CNT 6

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 6358669	B1	20020319	US 1999-469489	19991222
	US 6352812	B1	20020305	US 1999-301866	19990429
	EP 1506856	A2	20050216	EP 2004-78162	19990608
	R: BE, DE, ES, FR, GB, IT, NL, SE				
	EP 1506857	A2	20050216	EP 2004-78163	19990608
	R: BE, DE, ES, FR, GB, IT, NL, SE				
	US 6534238	B1	20030318	US 2000-592895	20000613
PRAI	US 1998-90300P	P	19980623		
	US 1999-301866	A2	19990429		
	EP 1999-928429	A3	19990608		
	US 1999-469489	A2	19991222		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
US 6358669	ICM	G03F007-09
	NCL	430273100
US 6358669	ECLA	B41C001/10A
US 6352812	ECLA	B41C001/10A
US 6534238	ECLA	B41C001/10A

AB A thermally imageable element, useful as a lithog. printing plate precursor that can be thermally imaged by imagewise exposure with a laser or a thermal printing head is disclosed. The element comprises a hydrophilic substrate; an underlayer comprising a 1st polymeric material; and an ink-receptive top layer comprising a 2nd polymeric material. Preferably, the top layer comprises a compound that functions as a solubility-suppressing component. The solubility-suppressing component may be

a sep. dissoln. inhibitor compound and/or the 2nd polymeric material may also function as a solubility-suppressing component. On thermal exposure, the exposed regions of the top layer becomes more readily soluble in an aqueous developer, allowing the developer to remove the top layer and reveal the surface of the hydrophilic substrate. The lithog. printing plate thus formed has excellent properties, including the absence of sludging of the developer.

ST thermal digital lithog printing plate Novolak sulfonamide imide amide; hydrophilic photothermal lithog printing plate

IT Phenolic resins, uses

RL: TEM (Technical or engineered material use); USES (Uses)

(novolak; thermal digital lithog. printing plate

having hydrophilic substrate and polymer underlayer containing photothermal conversion material)

IT Lithographic plates

(thermal imaging; thermal digital lithog. printing

plate having hydrophilic substrate and polymer underlayer containing photothermal conversion material)

IT 2390-59-2 27754-99-0 134127-48-3, ADS 830A 184348-68-3 404928-04-7



STN search for 10765,797

RL: DEV (Device component use); TEM (Technical or engineered material use); USES (Uses)  
(thermal **digital** lithog. printing **plate** having hydrophilic substrate and polymer underlayer containing photothermal conversion material)

IT 63-74-1D, reaction products with GANTREZ AN119 131662-79-8D, reaction products with p-aminobenzenesulfonamide 321963-43-3 404927-95-3 404927-96-4

RL: TEM (Technical or engineered material use); USES (Uses)  
(thermal **digital** lithog. printing **plate** having hydrophilic substrate and polymer underlayer containing photothermal conversion material)

RE.CNT 47 THERE ARE 47 CITED REFERENCES AVAILABLE FOR THIS RECORD

RE

- (1) Anon; GB 1245924 1971
- (2) Anon; DE 2626769 1977 CAPLUS
- (3) Anon; EP 0368327 1990 CAPLUS
- (4) Anon; DE 4231324 1993 CAPLUS
- (5) Anon; EP 0678380 A2 1995
- (6) Anon; JP 09034110 1995 CAPLUS
- (7) Anon; EP 0784233 1997 CAPLUS
- (8) Anon; WO 9707986 1997 CAPLUS
- (9) Anon; WO 9739894 1997 CAPLUS
- (10) Anon; EP 0823327 1998 CAPLUS
- (11) Anon; EP 0864419 1998
- (12) Anon; EP 0864420 1998 CAPLUS
- (13) Anon; EP 0908779 1999 CAPLUS
- (14) Anon; EP 0909657 1999 CAPLUS
- (15) Anon; EP 919868 A1 1999 CAPLUS
- (16) Aoshima; US 5141838 A 1992 CAPLUS
- (17) Blanchet-Fincher; US 6066434 A 2000
- (18) Brinckman; US 3645733 A 1972 CAPLUS
- (19) Deroover; US 6004728 A 1999 CAPLUS
- (20) Grunwald; US 5641608 A 1997 CAPLUS
- (21) Hase; US 5609993 A 1997 CAPLUS
- (22) Huang; US 5919600 A 1999 CAPLUS
- (23) Huang; US 6251559 B1 2001 CAPLUS
- (24) Ishizuka; US 5731127 A 1998 CAPLUS
- (25) Kamiya; US 5112743 A 1992 CAPLUS
- (26) Lewis; US 5493971 A 1996
- (27) Miller; US 6083662 A 2000 CAPLUS
- (28) Murata; US 6074802 A 2000 CAPLUS
- (29) Nguyen; US 6060217 A 2000 CAPLUS
- (30) Parsons; US 6280899 B1 2001 CAPLUS
- (31) Rorke; US 6182570 B1 2001
- (32) Rorke; US 6186067 B1 2001
- (33) Rorke; US 6192798 B1 2001
- (34) Shimazu; US 6294311 B1 2001 CAPLUS
- (35) Takeda; US 5858604 A 1999 CAPLUS
- (36) Toyama; US 4687727 A 1987 CAPLUS
- (37) Urano; US 6200727 B1 2001 CAPLUS
- (38) van Damme; US 6153353 A 2000 CAPLUS
- (39) Verburgh; US 5536619 A 1996 CAPLUS
- (40) Vermeersch; US 6022667 A 2000 CAPLUS
- (41) Vermeersch; US 6083663 A 2000 CAPLUS
- (42) Vermeersch; US 6096481 A 2000 CAPLUS
- (43) Wang; US 5529891 A 1996 CAPLUS
- (44) West; US 5705308 A 1998 CAPLUS
- (45) West; US 5705322 A 1998 CAPLUS
- (46) West; US 6060222 A 2000 CAPLUS

STN search for 10765,797

(47) West; US 6090532 A 2000 CAPLUS

L9 ANSWER 3 OF 3 CAPLUS COPYRIGHT 2005 ACS on STN  
AN 2001:923695 CAPLUS  
DN 136:61542  
ED Entered STN: 21 Dec 2001  
TI Thermal **digital** lithographic printing plate  
IN Hauck, Celin-Savariar; Shimazu, Kenichi; **Timpe, Hans-Joachim**;  
Patel, Jayanti; Huang, Jianbing  
PA Kodak Polychrome Graphics Company Ltd., USA  
SO PCT Int. Appl., 42 pp.  
CODEN: PIXXD2  
DT Patent  
LA English  
IC ICM B41C001-10  
ICS B41N003-03  
CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other  
Reprographic Processes)  
Section cross-reference(s): 35, 38

FAN.CNT 6

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2001096119	A1	20011220	WO 2000-US33605	20001212
	W: BR, JP				
	RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR				
	US 6534238	B1	20030318	US 2000-592895	20000613
	EP 1303399	A1	20030423	EP 2000-986322	20001212
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI, CY, TR				
	BR 2000017252	A	20030527	BR 2000-17252	20001212
	JP 2004503806	T2	20040205	JP 2002-510282	20001212
PRAI	US 2000-592895	A	20000613		
	US 1998-90300P	P	19980623		
	US 1999-301866	A2	19990429		
	US 1999-469489	A2	19991222		
	WO 2000-US33605	W	20001212		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
WO 2001096119	ICM	B41C001-10
	ICS	B41N003-03
US 6534238	ECLA	B41C001/10A
JP 2004503806	FTERM	2H025/AA04; 2H025/AB03; 2H025/AC08; 2H025/AD03; 2H025/BE01; 2H025/CB28; 2H025/CB29; 2H025/CB45; 2H025/CC11; 2H025/DA17; 2H025/DA31; 2H025/DA36; 2H025/FA10; 2H025/FA17; 2H096/AA06; 2H096/BA10; 2H096/CA06; 2H096/EA04; 2H096/EA23; 2H096/GA08; 2H096/KA06

AB A thermally imageable element, useful as a lithog. printing **plate** precursor is disclosed. The element comprises a hydrophilic substrate; an underlayer comprising a first polymeric material; and an ink-receptive top layer comprising a second polymeric material and a solubility-suppressing component. The solubility-suppressing component may be a sep. dissoln. inhibitor compound and/or the second polymeric material may also function as a solubility-suppressing component. On thermal exposure the exposed regions of the top layer becomes more readily soluble in an aqueous developer, allowing the developer to remove the top layer and reveal the surface of the hydrophilic substrate. The lithog. printing **plate** thus formed

STN search for 10765,797

has excellent properties, including the absence of sludging of the developer.

ST thermal **digital** lithog printing **plate**

IT Polyvinyl acetals  
RL: TEM (Technical or engineered material use); USES (Uses)  
(carboxy functional; thermal **digital** lithog. printing **plate** containing)

IT Phenolic resins, uses  
RL: TEM (Technical or engineered material use); USES (Uses)  
(novolak, cresol-based, tosylated; thermal **digital** lithog. printing **plate** containing)

IT Lithographic plates  
Thermal printing materials  
(polymeric material and substrate for)

IT 134127-48-3, EC 2117  
RL: TEM (Technical or engineered material use); USES (Uses)  
(ADS 830A, EC 2117, Trump IR, inhibitor; thermal **digital** lithog. printing **plate** containing)

IT 9016-83-5, LB 744  
RL: TEM (Technical or engineered material use); USES (Uses)  
(LB 744; thermal **digital** lithog. printing **plate** containing)

IT 184348-68-3, PMP 234  
RL: TEM (Technical or engineered material use); USES (Uses)  
(PMP 234; thermal **digital** lithog. printing **plate** containing)

IT 94108-97-1D, Ditrimehylolpropane tetraacrylate, polymer with acrylic resin  
RL: TEM (Technical or engineered material use); USES (Uses)  
(Sartomer 355; thermal **digital** lithog. printing **plate** photopolymerizable composition containing)

IT 1941-30-6, Tetrapropyl ammonium bromide 2390-59-2, Ethyl violet  
RL: TEM (Technical or engineered material use); USES (Uses)  
(inhibitor; thermal **digital** lithog. printing **plate** containing)

IT 27754-99-0, Polyvinyl phosphonic acid  
RL: TEM (Technical or engineered material use); USES (Uses)  
(substrate coating; thermal **digital** lithog. printing **plate** containing)

IT 63-74-1D, p-Aminobenzenesulfonamide, reaction with maleimide-Me vinyl ether copolymer 98-59-9D, p-Toluene sulfonyl chloride, reaction products with cresol novolaks 52229-50-2D, Gantrez AN 119, reaction with aminobenzenesulfonamide 141634-00-6, Acrylonitrile-methyl methacrylate-N-(p-aminosulfonylphenyl)methacrylamide copolymer 153853-28-2 253272-47-8, Nega 107 321963-43-3, Methacrylic acid-methacrylamide-N-phenylmaleimide copolymer 381206-89-9 381213-54-3D, PD 140, tosylated to 3.0 mol%  
RL: TEM (Technical or engineered material use); USES (Uses)  
(thermal **digital** lithog. printing **plate** containing)

IT 603-48-5, Leuco crystal violet 86003-21-6, Actilane 20 161279-62-5, Joncryl 683 381213-71-4, Jagotex MA 2814/3  
RL: TEM (Technical or engineered material use); USES (Uses)  
(thermal **digital** lithog. printing **plate** photopolymerizable composition containing)

RE.CNT 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD

RE

(1) Agfa-Gevaert; EP 0940266 A 1999 CAPLUS  
(2) Dainippon Ink & Chemicals; EP 0737896 A 1996 CAPLUS  
(3) Dainippon Ink & Chemicals; US 5731127 A 1998 CAPLUS  
(4) Fuji; EP 0894622 A 1999 CAPLUS

STN search for 10765,797

- (5) Horsell Graphic; WO 9739894 A 1997 CAPLUS
- (6) Nguyen; US 6060217 A 2000 CAPLUS

=> d his

(FILE 'HOME' ENTERED AT 08:43:25 ON 25 FEB 2005)

FILE 'CAPLUS' ENTERED AT 08:43:35 ON 25 FEB 2005

E TIMPE/AU

L1 324 S E10-15  
L2 0 S L1 AND NIP  
L3 1 S L1 AND MECHANISTICAL  
L4 0 S NIP15  
L5 3996 S NIP  
L6 358 S NIP AND 15  
L7 0 S L6 AND KODAK  
L8 11 S L6 AND CONF?  
L9 3 S L1 AND DIGITAL AND PLATE

=> s l1 and perfluoro?

47080 PERFLUORO?

L10 2 L1 AND PERFLUORO?

=> s l10 not l9

L11 2 L10 NOT L9

=> d all 1-2

L11 ANSWER 1 OF 2 CAPLUS COPYRIGHT 2005 ACS on STN  
AN 1995:633052 CAPLUS  
DN 123:111327  
ED Entered STN: 23 Jun 1995  
TI Radical additions to fluoroolefins: experimental evidence for a  
free-radical chain mechanism in the photo-initiated addition of alcohols  
to fluoroolefins  
AU Paleta, Oldrich; Kvicala, Jaroslav; Budkova, Zuzana; **Timpe, Hans  
Joachim**  
CS Dep. Organic Chem., Prague Inst. Chem. Technol., Prague, 166 28, Czech  
Rep.  
SO Collection of Czechoslovak Chemical Communications (1995), 60(4), 636-44  
CODEN: CCCCAK; ISSN: 0010-0765  
PB Institute of Organic Chemistry and Biochemistry, Academy of Sciences of  
the Czech Republic  
DT Journal  
LA English  
CC 22-4 (Physical Organic Chemistry)  
OS CASREACT 123:111327  
GI

R<sub>F</sub>CHFCF<sub>2</sub>C(OH)Me<sub>2</sub> I

AB Photo-initiated addition of 2-propanol to two fluoroolefinic compds., i.e. Me  
2,4,4,5,6,6-hexafluoro-3-oxa-2-(trifluoromethyl)hex-5-enoate (I) containing  
**perfluoroallyloxy** group and 8,9-dichloro-1,1,2,4,4,5,7,7,8,9,9s-  
undecafluoro-3,6-dioxa-5-(trifluoromethyl)dodec-1-ene (II) containing

STN search for 10765,797

trifluorovinyl group were used to verify a radical chain mechanism by means of quantum yield measurements based on substrate-decay kinetic. UV-Light energy (254 nm) was transferred to the reaction system via triplet-excited acetone. Quantum yields  $\Phi$  of the addition products (III, IV) reached values 68 and 42, resp., and thus confirmed the chain mechanism. The olefinic compds. I and II [Rf= MeO<sub>2</sub>CCF(CF<sub>3</sub>)OCF<sub>2</sub>, CF<sub>2</sub>ClCFClCF<sub>2</sub>OCF(CF<sub>3</sub>)CF<sub>2</sub>O] were synthesized on the basis of the reaction of 2,3-dichloro-2,3,3-trifluoropropanoyl fluoride with hexafluoropropene-1,2-oxide. The photoaddn. of 2-propanol to both olefins took place with complete regioselectivity.

ST photoaddn fluoroolefin isopropanol mechanism

IT Alkenes, reactions

RL: PEP (Physical, engineering or chemical process); RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); PROC (Process); RACT (Reactant or reagent)

(fluoro, radical chain mechanism in the photo-initiated addition of alcs. to fluoroolefins)

IT Addition reaction

(homolytic, photochem., radical chain mechanism in the photo-initiated addition of alcs. to fluoroolefins)

IT 73353-30-7P 133145-49-0P

RL: PEP (Physical, engineering or chemical process); RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); PROC (Process); RACT (Reactant or reagent)

(radical chain mechanism in the photo-initiated addition of alcs. to fluoroolefins)

IT 133145-50-3P 133145-51-4P

RL: SPN (Synthetic preparation); PREP (Preparation)

(radical chain mechanism in the photo-initiated addition of alcs. to fluoroolefins)

IT 73353-27-2P

RL: PEP (Physical, engineering or chemical process); RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); PROC (Process); RACT (Reactant or reagent)

(synthesis of fluoroolefins)

IT 428-59-1, Hexafluoropropene-1,2-oxide 41594-59-6, 2,3-Dichloro-2,3,3-trifluoropropanoyl fluoride

RL: RCT (Reactant); RACT (Reactant or reagent)

(synthesis of fluoroolefins)

IT 73353-29-4P 129392-56-9P 165602-03-9P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(synthesis of fluoroolefins)

IT 165602-01-7P 165602-02-8P

RL: SPN (Synthetic preparation); PREP (Preparation)

(synthesis of fluoroolefins)

L11 ANSWER 2 OF 2 CAPLUS COPYRIGHT 2005 ACS on STN

AN 1990:439931 CAPLUS

DN 113:39931

ED Entered STN: 03 Aug 1990

TI Preparation of fluorinated alkanols

IN Paleta, Oldrich; Dedek, Vaclav; Rautschek, Holger; Timpe, Hans Joachim

PA Czech.

SO Czech., 4 pp.

CODEN: CZXXA9

DT Patent

LA Czech

IC ICM C07C031-38

STN search for 10765,797

CC 23-7 (Aliphatic Compounds)

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	CS 262373	B1	19890314	CS 1987-159	19870108
PRAI	CS 1987-159		19870108		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
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CS 262373	ICM	C07C031-38
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OS MARPAT 113:39931

AB H(C2F4)nC(OH)RR1 (R and R1 = H or alkyl, n = 1-6) are prepared by reaction of C2F4 with aliphatic alcs. initiated by UV irradiation and azo or peroxo compds. and ketones. Thus, passing C2F4 in 5 h at 16-25° into a mixture of 70 mL Me2CHOH and 1.9 g azo-bisisobutyronitrile with irradiation from

a Hg lamp gave 7.6 g CHF2CF2C(OH)Me2.

ST alkanol fluorinated; **perfluoroethylene** addn alkanol

IT 29759-38-4, Tetrafluoroethane

RL: RCT (Reactant); RACT (Reactant or reagent)  
(addition of alkanols to)

IT 78-92-2, 2-Butanol

RL: PROC (Process)  
(addition of, to **perfluoroethylene**)

IT 64-17-5, Ethanol, reactions 67-56-1, Methanol, reactions 67-63-0, 2-Propanol, reactions

RL: RCT (Reactant); RACT (Reactant or reagent)  
(addition of, to **perfluoroethylene**)

IT 76-37-9P 335-99-9P 355-80-6P 17425-25-1P 29553-26-2P  
127982-12-1P

RL: SPN (Synthetic preparation); PREP (Preparation)  
(preparation of)

=> d his

(FILE 'HOME' ENTERED AT 08:43:25 ON 25 FEB 2005)

FILE 'CAPLUS' ENTERED AT 08:43:35 ON 25 FEB 2005

E TIMPE/AU

L1 324 S E10-15

L2 0 S L1 AND NIP

L3 1 S L1 AND MECHANISTICAL

L4 0 S NIP15

L5 3996 S NIP

L6 358 S NIP AND 15

L7 0 S L6 AND KODAK

L8 11 S L6 AND CONF?

L9 3 S L1 AND DIGITAL AND PLATE

L10 2 S L1 AND PERFLUORO?

L11 2 S L10 NOT L9

=> s l1 and Digital and printing

1 DIGITAL

130353 PRINTING

L12 0 L1 AND DIGITAL AND PRINTING

=> s l1 and Digital

1 DIGITAL

L13 0 L1 AND DIGITAL

STN search for 10765,797

=> s l1 and Digital  
38334 DIGITAL  
L14 3 L1 AND DIGITAL

=> s l14 not l9  
L15 0 L14 NOT L9

=> s l14 and printing  
130353 PRINTING  
L16 3 L14 AND PRINTING

=> s l16 not l9  
L17 0 L16 NOT L9

=> s l14 and (ir or infrared or infra red)  
560388 IR  
231806 INFRARED  
4653 INFRA  
362126 RED  
4048 INFRA RED  
(INFRA(W) RED)  
L18 2 L14 AND (IR OR INFRARED OR INFRA RED)

=> s l18 not l9  
L19 0 L18 NOT L9

=> d his

(FILE 'HOME' ENTERED AT 08:43:25 ON 25 FEB 2005)

FILE 'CAPLUS' ENTERED AT 08:43:35 ON 25 FEB 2005

E TIMPE/AU  
L1 324 S E10-15  
L2 0 S L1 AND NIP  
L3 1 S L1 AND MECHANISTICAL  
L4 0 S NIP15  
L5 3996 S NIP  
L6 358 S NIP AND 15  
L7 0 S L6 AND KODAK  
L8 11 S L6 AND CONF?  
L9 3 S L1 AND DIGITAL AND PLATE  
L10 2 S L1 AND PERFLUORO?  
L11 2 S L10 NOT L9  
L12 0 S L1 AND DIGITAL AND PRINTING  
L13 0 S L1 AND DIGITAL  
L14 3 S L1 AND DIGITAL  
L15 0 S L14 NOT L9  
L16 3 S L14 AND PRINTING  
L17 0 S L16 NOT L9  
L18 2 S L14 AND (IR OR INFRARED OR INFRA RED)  
L19 0 S L18 NOT L9

=> s l1 and priting  
2 PRITING  
L20 0 L1 AND PRITING

=> s l1 and printing  
130353 PRINTING  
L21 62 L1 AND PRINTING

STN search for 10765,797

=> s 121 not 19  
L22 59 L21 NOT L9

=> s 122 and thermal  
971678 THERMAL  
L23 6 L22 AND THERMAL

=> s 122 and photo?  
1311639 PHOTO?  
L24 45 L22 AND PHOTO?

=> d all 123 1-6; d all 124 1-45

L23 ANSWER 1 OF 6 CAPLUS COPYRIGHT 2005 ACS on STN  
AN 2003:511923 CAPLUS  
DN 139:76380  
ED Entered STN: 04 Jul 2003  
TI Process for making **thermal negative printing plate**  
IN Savariar-Hauck, Celin; **Timpe, Hans-joachim**  
PA Kodak Polychrome Graphics LLC, Germany  
SO U.S. Pat. Appl. Publ., 13 pp.  
CODEN: USXXCO

DT Patent  
LA English

IC ICM G03F007-038

NCL 430270100; 430281100; 430283100; 430286100; 430302000; 430306000;  
430348000; 430287100; 101463100; 101465000

CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other  
Reprographic Processes)

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 2003124454	A1	20030703	US 2002-39164	20020103
	US 6599676	B2	20030729		
PRAI	US 2002-39164		20020103		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
US 2003124454	ICM	G03F007-038
	NCL	430270100; 430281100; 430283100; 430286100; 430302000; 430306000; 430348000; 430287100; 101463100; 101465000

AB A process for making thermally imageable neg. working compns. comprises the steps of: (1) providing a patterning composition layer on a substrate, said patterning composition comprising: (a) at least one acid generator which is sensitive to UV radiation; (b) at least one crosslinking resin or compound; (c) at least one binder resin comprising a polymer containing at least one reactive pendent group consisting of hydroxyl, carboxylic acid, sulfonamide, alkoxymethylamide and mixts. thereof; and (d) at least one IR absorber; (2) subjecting the patterning composition layer to a two-stage radiation exposure; (a) one stage being a flood UV-exposure; and (b) the other stage being a imagewise IR exposure stage; (3) treating the exposed patterning composition with heat energy; and (4) developing the heat treated, exposed patterning composition with an aqueous alkaline developer to remove the non-imaged areas of the patterning composition and leaving the imaged areas substantially unaffected.

ST **thermal neg printing plate**

IT **Printing plates**

(process for making **thermal neg. printing plate**)



STN search for 10765,797

L23 ANSWER 2 OF 6 CAPLUS COPYRIGHT 2005 ACS on STN

AN 2001:839471 CAPLUS

DN 136:29085

ED Entered STN: 19 Nov 2001

TI IR sensitive layers for manufacturing of offset **printing** plates

AU **Timpe, H.-J.**

CS Abteilung F + E, Kodak Polychrome Graphics GmbH, Osterode, D-37520, Germany

SO Materialwissenschaft und Werkstofftechnik (2001), 32(10), 785-788

CODEN: MATWER; ISSN: 0933-5137

PB Wiley-VCH Verlag GmbH

DT Journal; General Review

LA German

CC 74-0 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

AB A review with refs. For the formulation of IR sensitive compns. for offset **printing** plates, 2 different modes are known to use the energy stored after the absorption of an IR photon in the excited state of an absorbing mol. A phys. mode is based on generated heat after internal crossing of the excited state. In contrast, a chemical mode proceeds via formation of reactive intermediates as consequence of the IR absorption. Such species can be generated either by **thermal** decomposition of a thermolabile component of the composition or by interaction between an excited state mol. of the IR absorber and a ground state mol. of a suited reaction partner. The heat generated by internal crossing is already used in com. available offset **printing** plates by coalescence or ablation processes. Single electron transfer reactions are processes of choice for a chemical deactivation of the excited state of IR absorbers. For a high efficiency of such processes, certain thermodyn. and kinetic prerequisites must be fulfilled. Electron deficient mols. such as onium salts are well suited as reaction partners for excited states of IR absorbers.

ST review IR sensitive layer manufg offset **printing** plate

IT Optical materials

(IR absorbers; IR sensitive layers for manufacturing of offset **printing** plates)

IT Lithographic plates

(offset; IR sensitive layers for manufacturing of offset **printing** plates)

RE.CNT 12 THERE ARE 12 CITED REFERENCES AVAILABLE FOR THIS RECORD

RE

(1) Anon; WO 0048836

(2) Anon; EP 0825927 CAPLUS

(3) Anon; DE 19648313 CAPLUS

(4) Anon; DE 19906823 CAPLUS

(5) Anon; US 5491046 CAPLUS

(6) Anon; US 5919601 CAPLUS

(7) Anon; US 6060217 CAPLUS

(8) De Boer, C; Proceedings TAGA 1995, P29

(9) Huang, J; Proceedings NIP 1998, V14, P190

(10) Timpe, H; Proceedings NIP 1999, V15, P209

(11) Timpe, H; Top Current Chem 1990, V156, P165

(12) Van Damme, M; Proceedings ICPS 1998, P186

L23 ANSWER 3 OF 6 CAPLUS COPYRIGHT 2005 ACS on STN

AN 2000:785877 CAPLUS

DN 133:357279

ED Entered STN: 09 Nov 2000

TI Developing system for alkaline-developable lithographic **printing** plates

IN Fiebag, Ulrich; **Timpe, Hans-Joachim**

STN search for 10765,797

PA Kodak Polychrome Graphics Llc, USA

SO U.S., 12 pp.

CODEN: USXXAM

DT Patent

LA English

IC ICM G03F007-32

NCL 430331000

CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 6143479	A	20001107	US 1999-449072	19991124
	EP 1081554	A1	20010307	EP 2000-118191	20000830
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
PRAI	US 1999-151697P	P	19990831		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
US 6143479	ICM	G03F007-32
	NCL	430331000
US 6143479	ECLA	G03F007/32A
EP 1081554	ECLA	G03F007/32A

AB An aqueous alkaline composition comprising at least one phosphonic acid, at least one

polyglycol derivative and at least one glycol. The composition can be used as either a developer or a replenisher for either pos.-working or neg.-working alkaline developable lithog. **printing** plates, including **thermal** plates.

ST lithog **printing** plates developer

IT Polyoxyalkylenes, uses

RL: TEM (Technical or engineered material use); USES (Uses)  
(Pluriol P 600; developing system for alkaline-developable lithog. **printing** plates)

IT Lithographic plates

(developing system for alkaline-developable lithog. **printing** plates)

IT 305374-72-5, Akypo LF 6

RL: TEM (Technical or engineered material use); USES (Uses)  
(Akypo LF 6; developing system for alkaline-developable lithog. **printing** plates)

IT 25322-69-4

RL: TEM (Technical or engineered material use); USES (Uses)  
(Pluriol P 600; developing system for alkaline-developable lithog. **printing** plates)

IT 7664-38-2, Phosphoric acid, uses

RL: TEM (Technical or engineered material use); USES (Uses)  
(developing system for alkaline-developable lithog. **printing** plates)

RE.CNT 18 THERE ARE 18 CITED REFERENCES AVAILABLE FOR THIS RECORD  
RE

- (1) Anon; GB 2082339 1982 CAPLUS
- (2) Anon; GB 2276729 1994 CAPLUS
- (3) Deboer; US 5491046 1996 CAPLUS
- (4) Garth; US 4927741 1990 CAPLUS
- (5) Haley; US 5340699 1994 CAPLUS
- (6) Haley; US 5372907 1994 CAPLUS
- (7) Haley; US 5466557 1995 CAPLUS
- (8) Hall; US 5122243 1992 CAPLUS

STN search for 10765,797

- (9) Matsumoto; US 4469776 1984 CAPLUS
- (10) Miller; US 5766826 1998 CAPLUS
- (11) Miller; US 5811221 1998 CAPLUS
- (12) Miller; US 5851735 1998 CAPLUS
- (13) Miller; US 5897985 1999 CAPLUS
- (14) Miller; US 5914217 1999 CAPLUS
- (15) Miller; US 5958655 1999 CAPLUS
- (16) Mohr; US 4458005 1984 CAPLUS
- (17) Walls; US 5368974 1994 CAPLUS
- (18) Yamasue; US 4259434 1981 CAPLUS

L23 ANSWER 4 OF 6 CAPLUS COPYRIGHT 2005 ACS on STN  
AN 2000:366013 CAPLUS  
DN 133:24691  
ED Entered STN: 01 Jun 2000  
TI Radiation-sensitive composition and its application to **thermal**  
imageable **printing** plate  
IN Hauck, Gerhard; Savariar-Hauck, Celin; Timpe, Hans-Joachim  
PA Kodak Polychrome Graphics G.m.b.H., Germany  
SO Ger. Offen., 6 pp.  
CODEN: GWXXBX  
DT Patent  
LA German  
IC ICM G03F007-004  
ICS G03F007-033; G03F007-039; B41M005-40  
CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic and Other  
Reprographic Processes)

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	DE 19850181	A1	20000531	DE 1998-19850181	19981030
	DE 19850181	C2	20031204		
	US 2002012878	A1	20020131	US 1999-429531	19991028
PRAI	DE 1998-19850181	A	19981030		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
DE 19850181	ICM	G03F007-004
	ICS	G03F007-033; G03F007-039; B41M005-40
DE 19850181	ECLA	B41C001/10A
US 2002012878	ECLA	B41C001/10A

AB The radiation-sensitive composition comprises (i) a polymer binder, (ii) at least 1 compound capable of releasing an acid upon **thermal** development, (iii) at least 1 radiation-absorbing compound capable of converting the absorbed radiation into heat, and (iv) at least 1 crosslinkable multifunctional enol ether, wherein the binder is insol. in an aqueous alkali medium of  $\leq 13.5$  pH.

ST radiation sensitive compn photoresist binder **thermal** imageable **printing** plate

IT Lithographic plates  
Photoimaging materials  
Photoresists

(radiation-sensitive composition and its application to **thermal** imageable **printing** plate)

IT 134127-48-3 134127-48-3

RL: TEM (Technical or engineered material use); USES (Uses)  
(IR-absorbing dye in radiation-sensitive composition for forming **thermal** imageable **printing** plate)

IT 68900-98-1, MS PF6

RL: TEM (Technical or engineered material use); USES (Uses)

STN search for 10765,797

(acid generator in radiation-sensitive composition for forming  
**thermal imageable printing plate**)  
IT 59269-51-1, PVP-S 2-27062/34-3  
RL: TEM (Technical or engineered material use); USES (Uses)  
(binder in radiation-sensitive composition for forming **thermal**  
**imageable printing plate**)  
IT 130066-57-8, Vectomer 4010  
RL: TEM (Technical or engineered material use); USES (Uses)  
(crosslinkable multifunctional enol ether in radiation-sensitive composition  
for forming **thermal imageable printing plate**)  
IT 139301-16-9, CD 1012  
RL: TEM (Technical or engineered material use); USES (Uses)  
(photoacid generator in radiation-sensitive composition for forming  
**thermal imageable printing plate**)  
IT 7429-90-5, Aluminum, uses  
RL: TEM (Technical or engineered material use); USES (Uses)  
(substrate of **thermal imageable printing plate**)  
RE.CNT 1 THERE ARE 1 CITED REFERENCES AVAILABLE FOR THIS RECORD  
RE  
(1) Anon; DE 19729067 A CAPLUS

L23 ANSWER 5 OF 6 CAPLUS COPYRIGHT 2005 ACS on STN  
AN 1999:819308 CAPLUS  
DN 132:71387  
ED Entered STN: 30 Dec 1999  
TI **Thermal** imaging material for lithographic plate preparation  
IN Shimazu, Ken-ichi; Patel, Jayanti; Saraiya, Shashikant; Merchant, Nishith;  
Savariar-Hauck, Celin; **Timpe, Hans-joachim**; McCullough,  
Christopher D.  
PA Kodak Polychrome Graphics Llc, USA  
SO PCT Int. Appl., 25 pp.  
CODEN: PIXXD2  
DT Patent  
LA English  
IC ICM B41M  
CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other  
Reprographic Processes)

FAN.CNT 6

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
	-----	---	-----	-----	-----
PI	WO 9967097	A2	19991229	WO 1999-US12689	19990608
	W: JP				
	RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
	US 6352812	B1	20020305	US 1999-301866	19990429
	JP 2002518715	T2	20020625	JP 2000-555763	19990608
	EP 1506856	A2	20050216	EP 2004-78162	19990608
	R: BE, DE, ES, FR, GB, IT, NL, SE				
	EP 1506857	A2	20050216	EP 2004-78163	19990608
	R: BE, DE, ES, FR, GB, IT, NL, SE				
PRAI	US 1998-90300P	P	19980623		
	US 1999-301866	A	19990429		
	EP 1999-928429	A3	19990608		
	WO 1999-US12689	W	19990608		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
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WO 9967097	ICM	B41M
WO 9967097	ECLA	B41C001/10A
US 6352812	ECLA	B41C001/10A

STN search for 10765,797

AB A **thermal** imaging material which can be imaged by imagewise exposure with an IR laser or a **thermal** head and suited for lithog. plate preparation comprises a hydrophilic substrate and a two-layer coating. The first layer of the coating comprises an aqueous solution-developable polymer mixture containing a photothermal conversion material which is contiguous to the hydrophilic substrate. The second layer of the coating comprises one or more non-aqueous solution-soluble polymers which are soluble or dispersible in a solvent which does not dissolve the first layer. The material is exposed with an IR laser or a **thermal** head and upon development of the imaged material in an aqueous solution, the exposed portions are removed exposing hydrophilic substrate surfaces receptive to conventional aqueous fountain solns. The unexposed portions contain ink-receptive image areas. The second layer may also contain a photothermal conversion material.

ST IR laser **thermal** imaging material lithog plate prepn

IT Lithographic plates  
(IR-laser-sensitive **thermal** imaging materials with two polymer layers on hydrophilic substrates for preparation of)

IT **Thermal printing** materials  
(IR-laser-sensitive; with two polymer layers on hydrophilic substrates for lithog. plate preparation)

IT Fluoropolymers, uses  
RL: TEM (Technical or engineered material use); USES (Uses)  
(MP 1100; IR-laser-sensitive **thermal** imaging materials for lithog. plate preparation with polymer layers containing)

IT Phenolic resins, uses  
RL: TEM (Technical or engineered material use); USES (Uses)  
(PN 430, SD 140; IR-laser-sensitive **thermal** imaging materials for lithog. plate preparation with polymer layers containing)

IT Carbon black, uses  
RL: TEM (Technical or engineered material use); USES (Uses)  
(Special Black 250; IR-laser-sensitive **thermal** imaging materials for lithog. plate preparation with polymer layers containing)

IT Polyvinyl acetals  
RL: TEM (Technical or engineered material use); USES (Uses)  
(carboxy-containing, T 71; IR-laser-sensitive **thermal** imaging materials for lithog. plate preparation with polymer layers containing)

IT Polyvinyl acetals  
RL: TEM (Technical or engineered material use); USES (Uses)  
(dimethylmaleimido-containing, AK 128; IR-laser-sensitive **thermal** imaging materials for lithog. plate preparation with polymer layers containing)

IT Recording materials  
(**thermal**, IR-laser-sensitive; with two polymer layers on hydrophilic substrates for lithog. plate preparation)

IT 9011-14-7, Poly(methyl methacrylate)  
RL: TEM (Technical or engineered material use); USES (Uses)  
(A 21; IR-laser-sensitive **thermal** imaging materials for lithog. plate preparation with polymer layers containing)

IT 9003-53-6, Polystyrene 9004-38-0, Cellulose acetate phthalate 9004-70-0, E950 9010-88-2, Acryloid B-82 25608-33-7, Acryloid B-66 27029-76-1, PD 140A 58229-85-9, Acryloid B-44 73546-46-0D, reaction products with mesitylenesulfonic acid 106209-33-0, SMA-1000 134127-48-3 253270-56-3, Carbofet 500 253272-47-8, Nega 107  
RL: TEM (Technical or engineered material use); USES (Uses)  
(IR-laser-sensitive **thermal** imaging materials for lithog. plate preparation with polymer layers containing)

IT 9002-84-0

STN search for 10765,797

RL: TEM (Technical or engineered material use); USES (Uses)  
(MP 1100; IR-laser-sensitive **thermal** imaging materials for  
lithog. plate preparation with polymer layers containing)  
IT 58748-38-2  
RL: TEM (Technical or engineered material use); USES (Uses)  
(National Starch 28-2930; IR-laser-sensitive **thermal** imaging  
materials for lithog. plate preparation with polymer layers containing)  
IT 9003-35-4, SD 140  
RL: TEM (Technical or engineered material use); USES (Uses)  
(PN 430, SD 140; IR-laser-sensitive **thermal** imaging materials  
for lithog. plate preparation with polymer layers containing)  
IT 58206-31-8  
RL: TEM (Technical or engineered material use); USES (Uses)  
(Scripset 540, Scripset 550; IR-laser-sensitive **thermal**  
imaging materials for lithog. plate preparation with polymer layers  
containing)

L23 ANSWER 6 OF 6 CAPLUS COPYRIGHT 2005 ACS on STN

AN 1999:184195 CAPLUS

DN 130:215895

ED Entered STN: 22 Mar 1999

TI **Thermal** lithographic **printing** plate

IN Nguyen, My T.; Merchant, Nishith; Shimazu, Ken-ichi; Pappas, Peter S.;  
Hallman, Robert W.; Kesselman, Jerome P.; Savariar-Hauck, Celin; Hauck,  
Gerhard; **Timpe, Hans-Joachim**

PA Kodak Polychrome Graphics LLC, USA

SO PCT Int. Appl., 22 pp.

CODEN: PIXXD2

DT Patent

LA English

IC ICM B41C001-10

ICS B41M005-36; G03F007-004; G03F007-023

CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other  
Reprographic Processes)

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9911458	A1	19990311	WO 1998-US16886	19980814
	W: CA, CN, JP				
	RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
	US 6060217	A	20000509	US 1997-922190	19970902
	EP 939698	A1	19990908	EP 1998-939401	19980814
	EP 939698	B1	20030924		
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
	AT 250497	E	20031015	AT 1998-939401	19980814
	ES 2206975	T3	20040516	ES 1998-939401	19980814
PRAI	US 1997-922190	A	19970902		
	WO 1998-US16886	W	19980814		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
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WO 9911458	ICM	B41C001-10
	ICS	B41M005-36; G03F007-004; G03F007-023
US 6060217	ECLA	B41C001/10A; B41M005/36S

AB A method for directly imaging a lithog. **printing** surface using  
IR radiation without the requirement of pre- or post-UV exposure or heat  
treatment employs a **printing** plate which contains a support with  
a hydrophilic surface overcoated with an imaging layer. The imaging layer

contains at least one polymer having bonded pendent groups which are hydroxy, carboxylic acid, tert-butyl-oxycarbonyl, sulfonamide, amide, nitrile, urea, or combinations thereof as well as an IR-absorbing compound. The imaging layer may contain a second polymer which ~~has bonded pendent~~ groups which are 1,2-naphthoquinone diazide, hydroxy, carboxylic acid, sulfonamide, hydroxymethyl amide, alkoxymethyl amide, nitrile, maleimide, urea, or combinations thereof. The imaging layer may also contain a visible absorption dye, a solubility inhibiting agent, or both. In practice, the imaging layer is imagewise exposed to IR radiation to produce exposed image areas in the imaged layer which have transient solubility in aqueous

alkaline

developing solution so that solubility is gradually lost over a period of time until the imaged areas become as insol. as non-imaged areas. Within a short time period of the imaging exposure, the imaged layer is developed with an aqueous alkaline developing solution to form the lithog. printing surface. In this method, the IR radiation preferably is laser radiation which is digitally controlled.

ST **thermal** lithog plate IR laser naphthoquinonediazide

IT Phenolic resins, uses

RL: TEM (Technical or engineered material use); USES (Uses)  
(Bu ether; IR laser-sensitive **thermal** recording materials for lithog. plate preparation containing)

IT Lithographic plates

(IR laser-sensitive **thermal** recording materials containing naphthoquinonediazides for preparation of)

IT **Thermal printing** materials

(IR laser-sensitive; containing naphthoquinonediazides for preparation of lithog. plates)

IT Recording materials

(**thermal**, IR laser-sensitive; containing naphthoquinonediazides for preparation of lithog. plates)

IT 139301-16-9, CD 1012

RL: TEM (Technical or engineered material use); USES (Uses)  
(CD 1012; IR laser-sensitive **thermal** recording materials for lithog. plate preparation containing)

IT 2185-86-6, Victoria Blue R 2390-59-2, Ethyl violet 2390-60-5, Victoria Blue BO 5496-71-9, ADS 1060A-IR 9003-35-4D, Phenol-formaldehyde polymer, Bu ether 9004-38-0, Cellulose acetate phthalate 9016-83-5, SD 140A 14233-37-5, Solvent Blue 36 17354-14-2, Solvent Blue 35 24979-70-2, Poly(4-hydroxystyrene) 24979-71-3, 4-Hydroxystyrene-methyl methacrylate copolymer 26284-14-0, Methacrylic acid-butyl methacrylate copolymer 26323-01-3 27029-76-1, PD 140A 55854-33-6, Butyl methacrylate-2-hydroxyethyl methacrylate-methacrylic acid-styrene copolymer 56793-67-0, Methacrylic acid-butyl methacrylate-methyl methacrylate-styrene copolymer 58748-38-2, Resyn 28-2930 68778-01-8, Ethyl methacrylate-2-hydroxyethyl methacrylate-methacrylic acid-styrene copolymer 161003-85-6, 2-Hydroxyethyl methacrylate-vinylphenol copolymer 181658-68-4, GP 7550 187683-87-0, Epolite IV 62B 208046-03-1, Methacrylic acid-N-methoxymethylmethacrylamide-2-phenylethyl methacrylate copolymer 220970-43-4, Epolite III 178 220970-44-5, Uravar FN 6 220970-76-3, Spectra IR 830A 220971-24-4, PMP 65 220971-25-5, PMP 92 220971-33-5, ST 798

RL: TEM (Technical or engineered material use); USES (Uses)  
(IR laser-sensitive **thermal** recording materials for lithog. plate preparation containing)

IT 220937-57-5, Polychrome 3000

RL: TEM (Technical or engineered material use); USES (Uses)  
(Polychrome 3000; IR laser-sensitive **thermal** recording materials for lithog. plate preparation containing)

RE.CNT 7 THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS RECORD

STN search for 10765,797

RE

- (1) Agfa-Gevaert; GB 1245924 A 1971
- (2) Agfa Gevaert NV; EP 0819980 A 1998 CAPLUS
- (3) Fuji Photo Film Co Ltd; EP 0780239 A 1997 CAPLUS
- (4) Gal, C; US 5641608 A 1997 CAPLUS
- (5) Haley, N; US 5340699 A 1994 CAPLUS
- (6) Hoare, R; WO 9739894 A 1997 CAPLUS
- (7) Mitsubishi Chem Corp; EP 0823327 A 1998 CAPLUS

L24 ANSWER 1 OF 45 CAPLUS COPYRIGHT 2005 ACS on STN  
AN 2005:14709 CAPLUS  
DN 142:123207  
ED Entered STN: 07 Jan 2005  
TI 1-4-dihydropyridine-containing IR-sensitive composition and use thereof  
for the production of imageable elements  
IN Timpe, Hans-Joachim; Wittig, Tobias; Huang, Jiangbing; Mueller,  
Ursula  
PA Kodak Polychrome Graphics G.m.b.H., Germany  
SO PCT Int. Appl., 53 pp.  
CODEN: PIXXD2  
DT Patent  
LA English  
IC ICM G03F007-00  
CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other  
Reprographic Processes)  
Section cross-reference(s): 35, 38

FAN.CNT 1

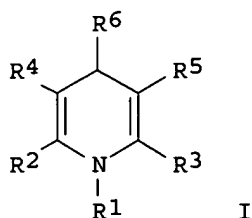
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2005001571	A2	20050106	WO 2004-EP6184	20040608
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
DE 10326326	A1	20050113	DE 2003-10326326	20030611
PRAI DE 2003-10326326	A	20030611		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
WO 2005001571	ICM	G03F007-00

GI





AB Disclosed is the 1-4-dihydropyridine-containing IR-sensitive composition comprising

(a) at least one substance capable of absorbing IR radiation, (b) at least one compound capable of forming free radicals, and (c) at least one 1,4-dihydropyridine derivative I (R1 = H, etc.; R2,3 = alkyl, etc.; R4,5 = CN, etc.; and R6 = alkyl, aryl, etc.).

ST dihydropyridine IR absorber compn lithog printing plate  
photopolymer initiator

IT Recrystallization  
(1-4-dihydropyridine-containing IR-sensitive composition for lithog. printing plate)

IT Optical materials  
(IR absorbers; 1-4-dihydropyridine-containing IR-sensitive composition for lithog. printing plate)

IT IR materials  
(absorbers; 1-4-dihydropyridine-containing IR-sensitive composition for lithog. printing plate)

IT Lithographic plates  
(photopolymer. initiator; 1-4-dihydropyridine-containing IR-sensitive composition for lithog. printing plate)

IT Polymerization catalysts  
(photopolymer.; 1-4-dihydropyridine-containing IR-sensitive composition for lithog. printing plate)

IT 21835-70-1P 70008-26-3P 70677-78-0P 111462-14-7P  
RL: NUU (Other use, unclassified); PRP (Properties); SPN (Synthetic preparation); PREP (Preparation); USES (Uses)  
(1-4-dihydropyridine-containing IR-sensitive composition for lithog. printing plate)

IT 548-62-9, Basonyl violet 610  
RL: NUU (Other use, unclassified); USES (Uses)  
(IR absorber; 1-4-dihydropyridine-containing IR-sensitive composition for lithog. printing plate)

IT 3584-23-4, 2-(4-Methoxyphenyl)-4,6-bis(trichloromethyl)-1,3,5-triazine  
6542-67-2 17025-47-7, Tribromomethylphenylsulfone 24504-22-1,  
2-Phenyl-4,6-bis(trichloromethyl)-s-triazine 199444-11-6 269401-43-6  
292047-58-6  
RL: CAT (Catalyst use); USES (Uses)

(photopolymer. initiator; 1-4-dihydropyridine-containing IR-sensitive composition for lithog. printing plate)  
IT 64-17-5, Ethanol, uses 67-56-1, Methanol, uses 67-63-0, 2-Propanol, uses 7732-18-5, Water, uses  
RL: NUU (Other use, unclassified); USES (Uses)  
(solvent for recrystn.; 1-4-dihydropyridine-containing IR-sensitive composition for lithog. printing plate)

STN search for 10765,797

AN 2004:1127643 CAPLUS  
DN 142:82328  
ED Entered STN: 24 Dec 2004  
TI Radiation-sensitive compositions comprising a 1,4-dihydropyridine sensitizer and imageable elements based thereon  
IN Timpe, Hanz-Joachim; Baumann, Harald  
PA Kodak Polychrome Graphics GmbH, Germany  
SO PCT Int. Appl., 46 pp.  
CODEN: PIXXD2  
DT Patent  
LA English  
IC ICM G03F007-031  
CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

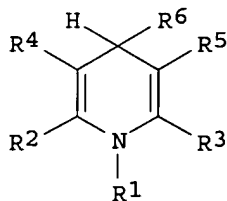
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2004111731	A1	20041223	WO 2004-EP6185	20040608
	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
	RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
	DE 10326324	A1	20050105	DE 2003-10326324	20030611
PRAI	DE 2003-10326324	A	20030611		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
WO 2004111731	ICM	G03F007-031
WO 2004111731	ECLA	G03F007/031
DE 10326324	ECLA	G03F007/031

GI



AB Radiation-sensitive composition comprising: (a) one or more types of monomers and/or oligomers and/or polymers, each comprising at least one ethylenically unsatd. group accessible to a free-radical polymerization, (b) at least one sensitizer, (c) at least one coinitiator capable of forming free radicals together with the sensitizer (b) and selected from hexaarylbiimidazoles; and (d) optionally one or more components selected from alkali-soluble binders, dyes, exposure indicators, plasticizers, chain transfer agents, leuco dyes, surfactants, inorg. fillers and thermo-polymerization inhibitors, characterized in that the at least one

STN search for 10765,797

sensitizer is a 1,4-dihydropyridine derivative of the formula I (R1 =H, C(O)OR7, alkyl group, aryl group, aralkyl group; R2,3 = alkyl, aryl, CN, H; R4,5 = C(O)OR7, C(O)R7, C(O)NR8R9; R2-5 = Ph ring or heterocyclic rings; R6 =alkyl, aryl, aralkyl, etc.; R7-9 = H, aryl, aralkyl, alkyl)which does not contain any nitro groups bonded to an aromatic ring.

ST radiation sensitive compn dihydropyridine sensitizer lithog  
printing

IT Lithography  
(radiation-sensitive compns. comprising 1,4-dihydropyridine sensitizer for)

IT **Photographic sensitizers**  
(radiation-sensitive compns. comprising 1,4-dihydropyridine sensitizer for lithog. **printing**)

IT 100-52-7, Benzaldehyde, reactions 105-45-3, Methylacetoacetate  
126-81-8, 5,5-Dimethyl-1,3-cyclohexanedione  
RL: RCT (Reactant); RACT (Reactant or reagent)  
(preparation of 1,4-dihydropyridine sensitizer for lithog. **printing**)

IT 2769-21-3P 21835-70-1P 70677-78-0P 111462-14-7P  
RL: PRP (Properties); SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)  
(radiation-sensitive compns. comprising 1,4-dihydropyridine sensitizer for lithog. **printing**)

RE.CNT 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD

RE

- (1) Grossa, M; US 4595651 A 1986 CAPLUS
- (2) Technische Hochschule Carl Schorlemmer Leuna-Merseburg; DD 287796 A 1991 CAPLUS

L24 ANSWER 3 OF 45 CAPLUS COPYRIGHT 2005 ACS on STN

AN 2004:870901 CAPLUS

DN 141:372781

ED Entered STN: 21 Oct 2004

TI Use of N-imine in heat-sensitive positive-working coating material for manufacturing offset lithographic **printing** plate

IN **Timpe, Hans-Joachim**; Mueller, Ursula

PA Kodak Polychrome Graphics G.m.b.H., Germany

SO Ger. Offen., 16 pp.

CODEN: GWXXBX

DT Patent

LA German

IC ICM G03F007-039

ICS B41C001-05

CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	DE 10312204	A1	20041021	DE 2003-10312204	20030319
PRAI	DE 2003-10312204		20030319		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
DE 10312204	ICM	G03F007-039
	ICS	B41C001-05
DE 10312204	ECLA	B41C001/10A

OS MARPAT 141:372781

AB The title heat-sensitive material comprises (A) an optionally pretreated support and (B) a pos.-working heat-sensitive coating layer containing (i) at least one phenolic resin and (ii) at least one N-imine. The material is

STN search for 10765,797

sensitive to 750-1300 nm wavelength. There are 4 synthesis examples of N-imine compds.

ST imine heat sensitive pos working coating material lithog plate

IT Phenolic resins, uses  
RL: TEM (Technical or engineered material use); USES (Uses)  
(novolak; use of N-imine in heat-sensitive pos.-working coating material for manufacturing offset lithog. **printing plate**)

IT **Photoimaging materials**  
(**photopolymerizable**; use of N-imine in heat-sensitive pos.-working coating material for manufacturing offset lithog. **printing plate**)

IT Lithographic plates  
(presensitized; use of N-imine in heat-sensitive pos.-working coating material for manufacturing offset lithog. **printing plate**)

IT 57-13-6, Urea, reactions 93-89-0, Ethylbenzoate 98-59-9, 4-Toluenesulfonyl chloride 100-39-0, Benzylbromide 108-24-7, Acetic anhydride 584-13-4, 4-Amino-1,2,4-triazole 589-15-1, 4-Bromobenzylbromide  
RL: RCT (Reactant); RACT (Reactant or reagent)  
(preparation of N-imine; use of N-imine in heat-sensitive pos.-working coating material for manufacturing offset lithog. **printing plate**)

IT 13213-82-6P 32585-76-5P 35224-59-0P 35224-65-8P 35224-79-4P 131140-65-3P 777090-55-8P, 1-(4-Bromobenzyl)-4-acetamino-1,2,4-triazoliumbromide 777090-58-1P  
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)  
(preparation of N-imine; use of N-imine in heat-sensitive pos.-working coating material for manufacturing offset lithog. **printing plate**)

IT 49558-86-3P 777090-57-0P 777090-60-5P  
RL: SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)  
(preparation of N-imine; use of N-imine in heat-sensitive pos.-working coating material for manufacturing offset lithog. **printing plate**)

IT 27029-76-1, Durite PD 140A 100346-90-5, Alnovol SPN 452 778593-39-8, Alnovol SPN 460  
RL: TEM (Technical or engineered material use); USES (Uses)  
(use of N-imine in heat-sensitive pos.-working coating material for manufacturing offset lithog. **printing plate**)

RE.CNT 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD

RE

(1) Anon; EP 1279519 A2 CAPLUS

(2) Anon; DE 3527890 A1 CAPLUS

L24 ANSWER 4 OF 45 CAPLUS COPYRIGHT 2005 ACS on STN

AN 2004:738339 CAPLUS

DN 141:251406

ED Entered STN: 10 Sep 2004

TI Fabrication of imageable elements for imaging by means of UV excimer laser irradiation

IN **Timpe, Hans-Joachim**; Mueller, Ursula

PA Kodak Polychrome Graphics GmbH, Germany

SO Ger. Offen., 15 pp.

CODEN: GWXXBX

DT Patent

LA German

IC ICM G03F007-00

ICS G03F007-20; G03F007-021

CC 74-4 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

Section cross-reference(s): 38, 76

STN search for 10765,797

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	DE 10304667	A1	20040909	DE 2003-10304667	20030205
PRAI	DE 2003-10304667		20030205		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
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DE 10304667	ICM	G03F007-00
	ICS	G03F007-20; G03F007-021

AB A development-free procedure for imageable elements is described, wherein the UV-sensitive layer comprises a polyvinyl acetal copolymer and a diazonium polycondensation product; the procedure comprises imagewise irradiation with UV light of a maximum wavelength of 310 nm and an energy of  $\geq 200$  mJ/cm<sup>2</sup> for an irradiation duration of nanoseconds and a following total exposure with light of a wavelength between 350 and 500 nm and an energy of  $\geq 150$  mJ/cm<sup>2</sup> for an irradiation duration of seconds. The elements are suitable for **printing** plates or electronic device fabrication.

ST imageable element **photopolymerizable** imaging UV excimer laser **printing** plate; electronic device fabrication **photoimaging** UV excimer laser

IT Electronic device fabrication

**Photolithography**

**Photoresists**

(fabrication of imageable elements for imaging by means of UV excimer laser irradiation)

IT Polyvinyl acetals

RL: TEM (Technical or engineered material use); USES (Uses)

(**photopolymerizable photoimaging** composition;

fabrication of imageable elements for imaging by means of UV excimer laser irradiation)

IT **Photoimaging** materials

(**photopolymerizable**; fabrication of imageable elements for imaging by means of UV excimer laser irradiation)

IT **Printing** plates

(presensitized; fabrication of imageable elements for imaging by means of UV excimer laser irradiation)

IT 223745-61-7, NW 1428

RL: TEM (Technical or engineered material use); USES (Uses)

(**photopolymerizable photoimaging** composition;

fabrication of imageable elements for imaging by means of UV excimer laser irradiation)

L24 ANSWER 5 OF 45 CAPLUS COPYRIGHT 2005 ACS on STN

AN 2004:392172 CAPLUS

DN 140:397389

ED Entered STN: 14 May 2004

TI Hetero-substituted aryl acetic acid co-initiators for IR-sensitive compositions for manufacturing negative-working **printing** plate precursors

IN Munnelly, Heidi M.; West, Paul R.; **Timpe, Hans-joachim**; Muller, Ursula; Huang, Jianbing

PA USA

SO U.S. Pat. Appl. Publ., 12 pp.

CODEN: USXXCO

DT Patent

LA English

IC ICM G03F007-038

ICS G03F007-11

STN search for 10765,797

NCL 430270100; 430273100; 430281100; 430286100; 430302000; 430309000;  
430434000; 430494000; 430944000; 430945000

CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other  
Reprographic Processes)

FAN.CNT 4

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 2004091811	A1	20040513	US 2002-283757	20021030
	US 6309792	B1	20011030	US 2000-690898	20001017
	US 2003003399	A1	20030102	US 2001-832989	20010411
	JP 2003012713	A2	20030115	JP 2002-107119	20020409
	US 2002197564	A1	20021226	US 2002-131866	20020425
	WO 2004041544	A1	20040521	WO 2003-US33820	20031023
	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VC, VN, YU, ZA, ZM, ZW				
	RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
	US 2004259027	A1	20041223	US 2004-847708	20040517
PRAI	WO 2000-EP1349	A1	20000218		
	US 2000-690898	A2	20001017		
	US 2001-832989	A	20010411		
	US 2001-40241	B2	20011109		
	US 2002-66874	A2	20020204		
	US 2002-131866	A2	20020425		
	US 2002-217005	A2	20020812		
	US 2002-283757	A	20021030		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
US 2004091811	ICM	G03F007-038
	ICS	G03F007-11
	NCL	430270100; 430273100; 430281100; 430286100; 430302000; 430309000; 430434000; 430494000; 430944000; 430945000
US 6309792	ECLA	B41C001/10A; B41M005/36S
US 2003003399	ECLA	B41C001/10A
US 2002197564	ECLA	B41C001/10A
US 2004259027	ECLA	B41C001/10A; B41M005/36S; G03F007/031

OS MARPAT 140:397389

AB The invention relates to an IR-sensitive composition comprising, in addition  
to a

polymeric binder, a free radical polymerizable system consisting of at  
least one member selected from unsatd. free radical polymerizable  
monomers, oligomers which are free radical polymerizable, and polymers  
containing C=C bonds in the back bone and/or in the side chain groups and an  
initiator system, wherein the initiator system comprises the following  
components: (a) at least one material capable of absorbing IR radiation,  
(b) at least one compound capable of producing radicals and (c) at least one  
hereto-substituted arylacetic acid co-initiator compound such as  
phenoxyacetic acid, (2-methoxyphenoxy)acetic acid, etc.

ST hetero substituted aryl acetate initiator IR compn lithog plate

IT Lithographic plates

(IR-sensitive, precursor; hetero-substituted aryl acetic acid  
co-initiators for ir-sensitive compns. for manufacturing neg.-working  
printing plate precursors)

STN search for 10765,797

IT Light-sensitive materials  
(IR; hetero-substituted aryl acetic acid co-initiators for ir-sensitive compns. for manufacturing neg.-working **printing** plate precursors)

IT Polymerization catalysts  
(**photopolymer.**; hetero-substituted aryl acetic acid co-initiators for ir-sensitive compns. for manufacturing neg.-working **printing** plate precursors)

IT 87-51-4, Indole-3-acetic acid, uses 103-01-5, N-Phenylglycine  
122-59-8, Phenoxyacetic acid 1878-85-9, (2-Methoxyphenoxy)acetic acid  
95735-63-0, 3,4-Dimethoxyphenylthioacetic acid  
RL: CAT (Catalyst use); USES (Uses)  
(hetero-substituted aryl acetic acid co-initiators for ir-sensitive compns.)

L24 ANSWER 6 OF 45 CAPLUS COPYRIGHT 2005 ACS on STN

AN 2003:633579 CAPLUS

DN 139:171302

ED Entered STN: 15 Aug 2003

TI On-press developable IR sensitive printing plates

IN **Timpe, Hans-Joachim**; Von Gyldenfeldt, Friederike

PA Kodak Polychrome Graphics LLC, USA

SO PCT Int. Appl., 57 pp.

CODEN: PIXXD2

DT Patent

LA English

IC ICM B41M005-36

ICS B41C001-10

CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

FAN.CNT 4

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2003066338 ✓	A1	20030814	WO 2003-US3256	20030204
	W: BR, CN, JP				
	RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, SE, SI, SK, TR				
	US 6309792	B1	20011030	US 2000-690898	20001017
	US 2003157433	A1	20030821	US 2002-66874	20020204
	US 6846614	B2	20050125		
	JP 2003012713	A2	20030115	JP 2002-107119	20020409
	US 2002197564	A1	20021226	US 2002-131866	20020425
	EP 1478516	A1	20041124	EP 2003-710835	20030204
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, FI, CY, TR, BG, CZ, EE, HU, SK				
	BR 2003007435	A	20041228	BR 2003-7435	20030204
PRAI	US 2002-66874	A	20020204		
	WO 2000-EP1349	A1	20000218		
	US 2000-690898	A2	20001017		
	US 2001-832989	A	20010411		
	WO 2003-US3256	W	20030204		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
WO 2003066338	ICM	B41M005-36
	ICS	B41C001-10
US 6309792	ECLA	B41C001/10A; B41M005/36S
US 2002197564	ECLA	B41C001/10A

OS MARPAT 139:171302

AB The IR-sensitive compns. suitable for the manufacture of **printing** plates developable on-press, comprise: (a) a first polymeric binder which

does not comprise acidic groups having a pKa value less than or equal to 8;. (b) a second polymeric binder comprising polyether groups;. (c) an initiator system comprising (i) at least one compound capable of absorbing IR radiation selected from triarylamine dyes, thiazolium dyes, indolium dyes, oxazolium dyes, cyanine dyes, polyaniline dyes, polypyrrole dyes, polythiophene dyes and phthalocyanine pigments; (ii) at least one compound capable of producing radicals selected from polyhaloalkyl-substituted compds.; and (iii) at least one polycarboxylic acid represented by the following formula  $\text{IR}_4-(\text{CR}_5\text{R}_6)_r-\text{Y}-\text{CH}_2\text{COOH}$  (I) wherein Y is selected from the group consisting of O, S and NR<sub>7</sub>, each of R<sub>4</sub>, R<sub>5</sub> and R<sub>6</sub> is independently selected from the group consisting of hydrogen, C<sub>1</sub>-C<sub>4</sub> alkyl, substituted or unsubstituted aryl, -COOH and NR<sub>8</sub>CH<sub>2</sub>COOH, R<sub>7</sub> is selected from the group consisting of hydrogen, C<sub>1</sub>-C<sub>6</sub> alkyl, -CH<sub>2</sub>CH<sub>2</sub>OH, and C<sub>1</sub>-C<sub>5</sub> alkyl substituted with -COOH, R<sub>8</sub> is selected from the group consisting of -CH<sub>2</sub>COOH, -CH<sub>2</sub>OH and -(CH<sub>2</sub>)<sub>2</sub>N(CH<sub>2</sub>COOH)<sub>2</sub> and r is 0, 1, 2 or 3, with the proviso that at least one of R<sub>4</sub>, R<sub>5</sub>, R<sub>6</sub>, R<sub>7</sub> and R<sub>8</sub> comprises a -COOH group or salts thereof;. (d) a free radical polymerizable system comprising at least one member selected from unsatd. free radical polymerizable monomers, oligomers which are free radical polymerizable and polymers containing C=C bonds in the back bone and/or in the side chain groups, wherein the following inequality is met:  $\text{oxi} < \text{redii} + 1.6 \text{ eV}$  with oxi=oxidation potential of component (i) in eV, redii=reduction potential of component (ii) in eV.

- ST **printing plate photosensitive IR dye triarylamine**
- IT thiazolium indolium; on press **printing plate**; IR initiator dye
- IT Polyurethanes, uses
- RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses)
- (acrylates; on-press developable IR sensitive **printing plates**)
- IT Pigments, nonbiological
- (anthraquinone; on-press developable IR sensitive **printing plates**)
- IT Amines, uses
- RL: CAT (Catalyst use); USES (Uses)
- (aryl, tertiary, dyes, initiator; on-press developable IR sensitive **printing plates**)
- IT Polyanilines
- RL: CAT (Catalyst use); USES (Uses)
- (dyes, initiator; on-press developable IR sensitive **printing plates**)
- IT Cyanine dyes
- (initiator; on-press developable IR sensitive **printing plates**)
- IT Leuco dyes
- Printing plates**
- (on-press developable IR sensitive **printing plates**)
- IT Polyoxyalkylenes, uses
- RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses)
- (on-press developable IR sensitive **printing plates**)
- IT Polyurethanes, uses
- RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses)
- (polyester-, binder; on-press developable IR sensitive **printing plates**)
- IT Conducting polymers
- (polypyrroles, dyes, initiator; on-press developable IR sensitive **printing plates**)
- IT Conducting polymers



STN search for 10765,797

(polythiophenes, dyes, initiator; on-press developable IR sensitive printing plates)

IT 9002-89-5, MOWIOL 4/98  
RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses)  
(MOWIOL 4/88; on-press developable IR sensitive printing plates)

IT 74-82-8D, Methane, triaryl derivative 81-88-9D, derivative 92-81-9D, 9,10-Dihydroacridine, derivative 135-67-1D, Phenoxazine, derivative 261-31-4D, Thioxanthene, derivative  
RL: CAT (Catalyst use); USES (Uses)  
(dye; on-press developable IR sensitive printing plates)

IT 496-15-1D, Indoline, derivative 28589-79-9D, Thiazolium, derivative 30969-75-6D, Oxazoline, derivative  
RL: CAT (Catalyst use); USES (Uses)  
(dyes, initiator; on-press developable IR sensitive printing plates)

IT 142-73-4, Amino diacetic acid 3584-23-4, 2-(4-Methoxyphenyl)-4,6-bis(trichloromethyl)-s-triazine 3712-60-5, 2-(4-Chlorophenyl)-4,6-bis(trichloromethyl)-s-triazine 3987-53-9 6542-67-2, 2,4,6-Tris(trichloromethyl)-s-triazine 17025-47-7, Tribromomethyl phenylsulfone 24504-22-1, 2-Phenyl-4,6-bis(trichloromethyl)-s-triazine 24687-55-6, 2,4,6-Tris(tribromomethyl)-s-triazine 205744-92-9 269401-43-6 292047-58-6 577791-85-6 577791-86-7  
RL: CAT (Catalyst use); USES (Uses)  
(on-press developable IR sensitive printing plates)

IT 9003-11-6, Ethylene oxide-propylene oxide copolymer  
RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses)  
(on-press developable IR sensitive printing plates)

IT 25232-42-2, Polyvinyl imidazole 58477-85-3, N,N'-Diallyl tartardiamide 115965-96-3, AIRVOL 203 139637-70-0, AIRVOL 603  
RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses)  
(oxygen-impermeable layer; on-press developable IR sensitive printing plates)

IT 112-85-6, Behenic acid 3061-75-4, Behenic acid amide  
RL: TEM (Technical or engineered material use); USES (Uses)  
(oxygen-impermeable layer; on-press developable IR sensitive printing plates)

IT 574-93-6D, Phthalocyanine, derivative  
RL: CAT (Catalyst use); USES (Uses)  
(pigments, initiator; on-press developable IR sensitive printing plates)

RE.CNT 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD  
RE  
(1) Fuji Photo Film Company Limited; EP 1106381 A 2001 CAPLUS  
(2) Hauck, G; US 6309792 B1 2001

L24 ANSWER 7 OF 45 CAPLUS COPYRIGHT 2005 ACS on STN  
AN 2003:376022 CAPLUS  
DN 138:373439  
ED Entered STN: 16 May 2003  
TI Method for reuse of loaded developer  
IN Fiebag, Ulrich; Timpe, Hans-Joachim; Tondock, Uwe; Vihs, Andreas  
PA Kodak Polychrome Graphics, LLC, Germany  
SO U.S. Pat. Appl. Publ., 10 pp.  
CODEN: USXXCO  
DT Patent

STN search for 10765,797

LA English  
IC ICM C02F001-52  
NCL 210732000  
CC 60-2 (Waste Treatment and Disposal)  
Section cross-reference(s): 74

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 2003089669	A1	20030515	US 2001-992688	20011114
	US 6759185	B2	20040706		
	WO 2003042761	A1	20030522	WO 2002-US36549	20021113
	W: JP				
	RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SK, TR				
	EP 1444552	A1	20040811	EP 2002-789645	20021113
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI, CY, TR, BG, CZ, EE, SK				
	WO 2004095141	A1	20041104	WO 2003-EP4272	20030424
	W: CN, JP, US				
	RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR				
PRAI	US 2001-992688	A	20011114		
	WO 2002-US36549	W	20021113		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
US 2003089669	ICM	C02F001-52
	NCL	210732000
US 2003089669	ECLA	G03F007/30W

AB A method for the refreshment and reuse of loaded developers used in lithog. **printing** is disclosed. A polyoxyalkylene derivative is added to a silicate-containing loaded developer. Insol. material is separated and the alkalinity level of the resulting essentially colorless liquid adjusted to produce a refreshed developer. The refreshed developer may be used to develop addnl. exposed imageable elements.

ST refreshment reuse loaded developer lithog **printing** polyoxyalkylene

IT Polyoxyalkylenes, reactions  
RL: CPS (Chemical process); PEP (Physical, engineering or chemical process); RCT (Reactant); PROC (Process); RACT (Reactant or reagent) (derivs.; method for refreshment and reuse of loaded developers used in lithog. **printing**)

IT Lithography  
**Photographic** developers  
(method for refreshment and reuse of loaded developers used in lithog. **printing**)

IT Polyoxyalkylenes, reactions  
Polyoxyalkylenes, reactions  
RL: CPS (Chemical process); PEP (Physical, engineering or chemical process); RCT (Reactant); PROC (Process); RACT (Reactant or reagent) (method for refreshment and reuse of loaded developers used in lithog. **printing**)

IT Lithographic plates  
(neg.-working; method for refreshment and reuse of loaded developers used in lithog. **printing**)

IT Phenolic resins, uses  
RL: TEM (Technical or engineered material use); USES (Uses) (novolak, imageable layer component; method for refreshment and reuse of loaded developers used in lithog. **printing**)

STN search for 10765,797

IT Monoamines  
RL: CPS (Chemical process); PEP (Physical, engineering or chemical process); RCT (Reactant); PROC (Process); RACT (Reactant or reagent) (polyoxyalkylated; method for refreshment and reuse of loaded developers used in lithog. **printing**)

IT Wastewater treatment  
in (precipitation; method for refreshment and reuse of loaded developers used in lithog. **printing**)

IT 1310-73-2, Sodium hydroxide, uses 1344-09-8, Sodium water glass  
RL: TEM (Technical or engineered material use); USES (Uses) (developer and replenisher component; method for refreshment and reuse of loaded developers used in lithog. **printing**)

IT 7647-01-0, Hydrochloric acid, processes  
RL: CPS (Chemical process); PEP (Physical, engineering or chemical process); PROC (Process) (for titration of developer alkalinity; method for refreshment and reuse of loaded developers used in lithog. **printing**)

IT 53208-22-3  
RL: TEM (Technical or engineered material use); USES (Uses) (imageable layer component; method for refreshment and reuse of loaded developers used in lithog. **printing**)

IT 107-15-3D, Ethylene diamine, reaction product with at least one C2-3 alkylene oxide 9003-11-6, Ethylene oxide propylene oxide copolymer 25322-68-3, Polyethylene oxide 25322-69-4, Pluriol p-600 37211-54-4, Triton cf32 109049-12-9, Synperonic T 304  
RL: CPS (Chemical process); PEP (Physical, engineering or chemical process); RCT (Reactant); PROC (Process); RACT (Reactant or reagent) (method for refreshment and reuse of loaded developers used in lithog. **printing**)

IT 330988-79-9, Easyprint  
RL: TEM (Technical or engineered material use); USES (Uses) (method for refreshment and reuse of loaded developers used in lithog. **printing**)

RE.CNT 13 THERE ARE 13 CITED REFERENCES AVAILABLE FOR THIS RECORD  
RE

- (1) Anon; EP 0520793 1992 CAPLUS
- (2) Anon; DE 4120075 1992 CAPLUS
- (3) Anon; EP 0732628 1996 CAPLUS
- (4) Anon; EP 0747773 1996 CAPLUS
- (5) Fiebag; US 20030211429 A1 2003 CAPLUS
- (6) Krikelis; US 3589261 A 1971
- (7) Miki; US 4786417 A 1988 CAPLUS
- (8) Ogawa; US 6153107 A 2000 CAPLUS
- (9) Seeley; US 5811224 A 1998 CAPLUS
- (10) Shibano; US 6247856 B1 2001
- (11) Uehara; US 4961859 A 1990 CAPLUS
- (12) Yamamoto; US 5124736 A 1992
- (13) Yamasue; US 4259434 A 1981 CAPLUS

L24 ANSWER 8 OF 45 CAPLUS COPYRIGHT 2005 ACS on STN

AN 2002:522484 CAPLUS

DN 137:85989

ED Entered STN: 12 Jul 2002

TI Radiation-sensitive compositions comprising polyvinyl acetals having azido groups for lithographic **printing** plate

IN **Timpe, Hans-joachim**; Muller, Ursula

PA Kodak Polychrome Graphics LLC, Germany

SO U.S. Pat. Appl. Publ., 11 pp.

CODEN: USXXCO

STN search for 10765,797

DT Patent  
LA English  
IC ICM G03F007-038  
NCL 430270100  
CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)  
Section cross-reference(s): 38

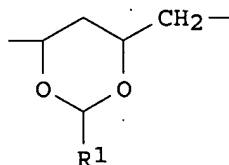
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 2002090566	A1	20020711	US 2000-751183	20001229
	US 6596460	B2	20030722		
PRAI	US 2000-751183		20001229		

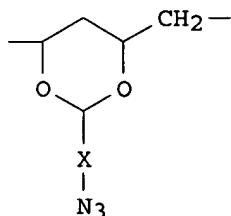
CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
US 2002090566	ICM	G03F007-038
	NCL	430270100

GI



I



II

AB A polyvinyl acetal copolymer compound comprises the units A, B, C and D, where A = -CH<sub>2</sub>-CHOCOR- (R = H, C1-6-alkyl, -CH=CHCOOH, C<sub>6</sub>H<sub>5</sub>COOH) is present in an amount of 0.5 to 30 weight%; B = -CH<sub>2</sub>CHOH- is present in an amount

of 5 to 35 weight%; C is defined by the formula I (R<sub>1</sub> = C1-4-alkyl, optionally substituted by an acid, Ph, Z-NR<sub>2</sub>-CO-Y-COOH (Z = aliphatic, aromatic or araliph. spacer group; R<sub>2</sub> = H, aliphatic, aromatic, araliph. moiety; Y = saturated or unsatd. chain- or ring-shaped spacer group)) and present in an amount of 10 to 55 weight%, and may have one or more occurrences in the copolymer with various moieties R<sub>1</sub> independent of one another; D is defined by the formula II (X = C1-6-alkylene; 5 or 6 membered saturated carbocyclic moiety optionally substituted with C1-4-alkyl, C1-4-alkoxy, halogen; 5 or 6 membered saturated heterocyclic moiety; C<sub>6</sub>H<sub>5</sub>(R<sub>3</sub>)<sub>n</sub> (n = 0-4, R<sub>3</sub> = C1-4-alkyl, halogen, C1-4-alkoxy)) and present in an amount of 10 to 40 weight%. A radiation-sensitive composition useful in a lithog. printing plate comprises (i) the above-described polyvinyl acetal copolymer; and (ii) a light-to-heat transformer compound. The object of the present invention is to provide polymers for radiation-sensitive compns. which ensure a good adhesion to normal aluminum substrates and thus lead to an acceptable number of prints produced without affecting ink receptivity.

ST lithog printing plate aluminum substrate photosensitive

STN search for 10765,797

- compn polyvinyl acetal
- IT Polyvinyl butyrals  
RL: PRP (Properties); SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)  
(azido-benzals; radiation-sensitive compns. comprising polyvinyl acetals having azido groups for lithog. **printing** plate)
- IT Lithographic plates  
(radiation-sensitive compns. comprising polyvinyl acetals having azido groups for lithog. **printing** plate)
- IT 459-57-4, 4-Fluoro benzaldehyde  
RL: RCT (Reactant); RACT (Reactant or reagent)  
(in preparation of polymer radiation-sensitive compns. for lithog. **printing** plate)
- IT 24173-36-2DP, 4-Azido benzaldehyde, cyclic acetals with poly(vinyl alc.)  
RL: RCT (Reactant); SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)  
(in preparation of polymer radiation-sensitive compns. for lithog. **printing** plate)
- IT 108-31-6DP, Maleic anhydride, reaction products with polyvinyl butyral and azido benzaldehyde or propion aldehyde  
RL: PRP (Properties); SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)  
(radiation-sensitive compns. comprising polyvinyl acetals having azido groups for lithog. **printing** plate)
- IT 7429-90-5, Aluminum, uses  
RL: TEM (Technical or engineered material use); USES (Uses)  
(substrate; radiation-sensitive compns. comprising polyvinyl acetals having azido groups for lithog. **printing** plate)
- L24 ANSWER 9 OF 45 CAPLUS COPYRIGHT 2005 ACS on STN
- AN 2001:839471 CAPLUS
- DN 136:29085
- ED Entered STN: 19 Nov 2001
- TI IR sensitive layers for manufacturing of offset **printing** plates
- AU Timpe, H.-J.
- CS Abteilung F + E, Kodak Polychrome Graphics GmbH, Osterode, D-37520, Germany
- SO Materialwissenschaft und Werkstofftechnik (2001), 32(10), 785-788  
CODEN: MATWER; ISSN: 0933-5137
- PB Wiley-VCH Verlag GmbH
- DT Journal; General Review
- LA German
- CC 74-0 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
- AB A review with refs. For the formulation of IR sensitive compns. for offset **printing** plates, 2 different modes are known to use the energy stored after the absorption of an IR **photon** in the excited state of an absorbing mol. A phys. mode is based on generated heat after internal crossing of the excited state. In contrast, a chemical mode proceeds via formation of reactive intermediates as consequence of the IR absorption. Such species can be generated either by thermal decomposition of a thermolabile component of the composition or by interaction between an excited state mol. of the IR absorber and a ground state mol. of a suited reaction partner. The heat generated by internal crossing is already used in com. available offset **printing** plates by coalescence or ablation processes. Single electron transfer reactions are processes of choice for a chemical deactivation of the excited state of IR absorbers. For a high efficiency of such processes, certain thermodyn. and kinetic prerequisites must be fulfilled. Electron deficient mols. such

STN search for 10765,797

as onium salts are well suited as reaction partners for excited states of IR absorbers.

ST review IR sensitive layer manufg offset **printing** plate

IT Optical materials

(IR absorbers; IR sensitive layers for manufacturing of offset **printing** plates)

IT Lithographic plates

(offset; IR sensitive layers for manufacturing of offset **printing** plates)

RE.CNT 12 THERE ARE 12 CITED REFERENCES AVAILABLE FOR THIS RECORD

RE

- (1) Anon; WO 0048836
- (2) Anon; EP 0825927 CAPLUS
- (3) Anon; DE 19648313 CAPLUS
- (4) Anon; DE 19906823 CAPLUS
- (5) Anon; US 5491046 CAPLUS
- (6) Anon; US 5919601 CAPLUS
- (7) Anon; US 6060217 CAPLUS
- (8) De Boer, C; Proceedings TAGA 1995, P29
- (9) Huang, J; Proceedings NIP 1998, V14, P190
- (10) Timpe, H; Proceedings NIP 1999, V15, P209
- (11) Timpe, H; Top Current Chem 1990, V156, P165
- (12) Van Damme, M; Proceedings ICPS 1998, P186

L24 ANSWER 10 OF 45 CAPLUS COPYRIGHT 2005 ACS on STN

AN 2001:677088 CAPLUS

DN 135:233934

ED Entered STN: 14 Sep 2001

TI Use of carboxyl group-containing acetal polymers in light-sensitive compositions and lithographic **printing** plates

IN Fuss, Robert; Baumann, Harald; Dwars, Udo; **Timpe, Hans-Joachim**

PA Clariant G.m.b.H., Germany; Kodak Polychrome Graphics G.m.b.H.

SO PCT Int. Appl., 35 pp.

CODEN: PIXXD2

DT Patent

LA German

IC ICM G03F007-033

CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

Section cross-reference(s): 38

FAN.CNT 1

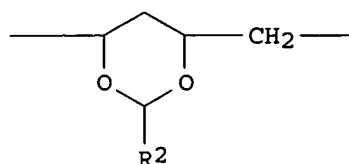
	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2001067179	A2	20010913	WO 2001-EP2543	20010307
	WO 2001067179	A3	20020117		
	W: BR, CA, CN, JP, KR, NO, US				
	RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR				
	DE 10011096	A1	20011011	DE 2000-10011096	20000309
	BR 2001009106	A	20021203	BR 2001-9106	20010307
	EP 1292860	A2	20030319	EP 2001-929416	20010307
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI, CY, TR				
	US 2003180654	A1	20030925	US 2002-221117	20021210
	US 6808858	B2	20041026		
PRAI	DE 2000-10011096	A	20000309		
	WO 2001-EP2543	W	20010307		

CLASS

PATENT NO. CLASS PATENT FAMILY CLASSIFICATION CODES

STN search for 10765,797

WO 2001067179 ICM G03F007-033  
DE 10011096 ECLA G03F007/021P; G03F007/021P2; G03F007/032  
US 2003180654 ECLA G03F007/021P; G03F007/021P2; G03F007/032  
GI



AB The present invention relates to a light-sensitive composition containing: (i)  
at  
least one diazonium polycondensation product or at least one system that  
can be radically polymerized and consists of **photo**-initiators and  
unsatd. compds. which can be radically polymerized or at least one hybrid  
system consisting of a diazonium polycondensation product and a system  
that can be radically polymerized and consists of **photo**-initiators  
and unsatd. compds. which can be radically polymerized, (ii) at least one  
binding agent and optionally one or more exposure indicators, one or more  
dyes for increasing the image contrast and one or more acids for  
stabilizing the light-sensitive composition which is characterized in that the  
binding agent essentially consists of units (A, B, C, D), whereby A  
corresponds to formula  $-\text{CH}_2\text{C}(\text{OCOR}_1)\text{H}-$  [ $\text{R}_1 = \text{H}$ , C1-4-aliphatic hydrocarbon,  
aromatic], B corresponds to formula  $-\text{CH}_2-\text{C}(\text{OH})\text{H}-$ , C corresponds to formula I  
[ $\text{R}_2 = \text{H}$ , C1-10-alkyl, aryl] and D corresponds to formula  $-\text{CH}_2\text{C}(\text{R}_3)(\text{COOH})-$   
[ $\text{R}_3 = \text{H}$ , C1-10-alkyl]. The invention also relates to the use thereof for  
coating **printing** plates. The invention further relates to  
**printing** plates which are coated with said light-sensitive composition  
ST **photopolymerizable** coating compn acetal polymer lithog  
printing plate  
IT Coating materials  
(light-sensitive; use of carboxyl group-containing acetal polymers in  
light-sensitive compns. and lithog. **printing** plates)  
IT **Photoimaging** materials  
(**photopolymerizable**; use of carboxyl group-containing acetal  
polymers in light-sensitive compns. and lithog. **printing**  
plates)  
IT Lithographic plates  
(use of carboxyl group-containing acetal polymers in light-sensitive  
compns. and lithog. **printing** plates)  
IT Polyvinyl acetals  
Polyvinyl butyrals  
RL: SPN (Synthetic preparation); TEM (Technical or engineered material  
use); PREP (Preparation); USES (Uses)  
(use of carboxyl group-containing acetal polymers in light-sensitive  
compns. and lithog. **printing** plates)  
IT 3453-83-6D, reaction products with 3-methoxy-diphenylamine-4-  
diazoniumsulfate-4,4'-bis-methoxymethyldiphenylether copolymer  
71510-01-5D, 3-Methoxydiphenylamine-4-diazonium sulfate-4,4'-  
bis(methoxymethyl)diphenyl ether copolymer, reaction products with  
mesitylene sulfonate

STN search for 10765,797

RL: TEM (Technical or engineered material use); USES (Uses)  
(use of carboxyl group-containing acetal polymers in light-sensitive  
compns. and lithog. **printing** plates)

L24 ANSWER 11 OF 45 CAPLUS COPYRIGHT 2005 ACS on STN

AN 2001:569705 CAPLUS

DN 135:144696

ED Entered STN: 07 Aug 2001

TI Acetal copolymers and use thereof in **photosensitive** compositions

IN Gandini, Alessandro; Waig, Fang Sandrine; **Timpe, Hans-joachim**;  
Baumann, Harald

PA Kodak Polychrome Graphics Llc, USA

SO U.S., 10 pp.

CODEN: USXXAM

DT Patent

LA English

IC ICM G03F007-021

ICS C08F008-00

NCL 430157000

CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic and Other  
Reprographic Processes)

Section cross-reference(s): 35

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 6270938	B1	20010807	US 2000-590930	20000609
	EP 1162209	A1	20011212	EP 2001-112097	20010529
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
	JP 2002080528	A2	20020319	JP 2001-174608	20010608
PRAI	US 2000-590930	A	20000609		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
US 6270938	ICM	G03F007-021
	ICS	C08F008-00
	NCL	430157000
US 6270938	ECLA	C08F008/00+16/06; G03F007/021P2; G03F007/038S
EP 1162209	ECLA	C08F008/00+16/06; G03F007/021P2; G03F007/038S

AB The invention relates to acetal copolymers and **photosensitive**  
compns. containing such polymers suitable for lithog. **printing**  
plates. In particular, the invention relates to acetal copolymers containing  
furylvinylidene, thienylvinylidene or pyrrolylvinylidene.

ST acetal furylvinylidene thienylvinylidene pyrrolylvinylidene  
**photosensitive** polymer lithog **printing** plate

IT **Printing** (nonimpact)

(lithog.; **photosensitive** compns. suitable for lithog.  
**printing** plates containing acetal polymers)

IT Lithographic plates

(**photosensitive** compns. suitable for lithog. **printing**  
plates containing acetal polymers)

IT Polymers, preparation

Polyvinyl acetals

RL: POF (Polymer in formulation); SPN (Synthetic preparation); TEM  
(Technical or engineered material use); PREP (Preparation); USES (Uses)  
(**photosensitive** compns. suitable for lithog. **printing**  
plates containing acetal polymers)

IT 147-14-8, Renol Blue B 2G-HW

RL: RCT (Reactant); TEM (Technical or engineered material use); RACT  
(Reactant or reagent); USES (Uses)



STN search for 10765,797

(Renol Blue B 2G-HW; synthesis of acetal copolymers and use in  
**photosensitive** compns. suitable for lithog. **printing**  
plates)

IT 57-55-6, 1,2-Propanediol, reactions 67-56-1, Methyl alcohol, reactions  
78-93-3, MEK, reactions 27754-99-0, Poly(vinylphosphonic acid)  
352000-83-0 352000-84-1  
RL: RCT (Reactant); TEM (Technical or engineered material use); RACT  
(Reactant or reagent); USES (Uses)  
(**photosensitive** compns. suitable for lithog. **printing**  
plates containing acetal polymers and)

IT 352000-80-7P 352000-81-8P  
RL: POF (Polymer in formulation); SPN (Synthetic preparation); TEM  
(Technical or engineered material use); PREP (Preparation); USES (Uses)  
(synthesis of acetal copolymers and use in **photosensitive**  
compns. suitable for lithog. **printing** plates)

IT 65022-02-8P 178860-72-5P  
RL: SPN (Synthetic preparation); TEM (Technical or engineered material  
use); PREP (Preparation); USES (Uses)  
(synthesis of acetal copolymers and use in **photosensitive**  
compns. suitable for lithog. **printing** plates)

RE.CNT 44 THERE ARE 44 CITED REFERENCES AVAILABLE FOR THIS RECORD

RE

- (1) Ali; US 5534381 1996 CAPLUS
- (2) Anon; EP 104863 1984 CAPLUS
- (3) Anon; CA 1172492 1984 CAPLUS
- (4) Anon; EP 208145 1987 CAPLUS
- (5) Anon; WO 8901871 1989 CAPLUS
- (6) Anon; EP 368327 1990 CAPLUS
- (7) Anon; EP 397375 1990 CAPLUS
- (8) Anon; EP 487343 1992 CAPLUS
- (9) Anon; EP 679950 1995 CAPLUS
- (10) Anon; EP 996603 1998 CAPLUS
- (11) Aoai; US 4741985 1988 CAPLUS
- (12) Aoai; US 4877711 1989 CAPLUS
- (13) Aoai; US 4950582 1990 CAPLUS
- (14) Aoai; US 4983491 1991 CAPLUS
- (15) Baumann; US 5925491 1999 CAPLUS
- (16) Baumann, H; J prakt Chem/Chemiker-Zeitung 1994, V336, P377 CAPLUS
- (17) Bosse; US 4387151 1983 CAPLUS
- (18) Colo; US 2946638 1960
- (19) Colo; US 3732105 1973 CAPLUS
- (20) Jewett; US 2714066 1955 CAPLUS
- (21) Joerg; US 5143813 1992 CAPLUS
- (22) Kamiya; US 5112743 1992 CAPLUS
- (23) Kita; US 4123276 1978 CAPLUS
- (24) Kita; US 4845009 1989 CAPLUS
- (25) Liu; US 4511640 1985 CAPLUS
- (26) Matsumura; US 5260161 1993 CAPLUS
- (27) Morrison; US 2179051 1939 CAPLUS
- (28) Mueller-Hess; US 5187040 1993 CAPLUS
- (29) Mueller-Hess; US 5206113 1993 CAPLUS
- (30) Mueller-Hess; US 5238772 1993 CAPLUS
- (31) Ohta; US 4304832 1981 CAPLUS
- (32) Pawlowski; US 4631245 1986 CAPLUS
- (33) Pawlowski; US 4840868 1989 CAPLUS
- (34) Pawlowski; US 4940646 1990 CAPLUS
- (35) Seitz; US 5176985 1993 CAPLUS
- (36) Sekiya; US 4774161 1988 CAPLUS
- (37) Steppan; US 3732106 1973 CAPLUS
- (38) Tomiyasu; US 4731316 1988 CAPLUS

STN search for 10765,797

(39) Toyama; US 4687727 1987 CAPLUS  
(40) Walls; US 4355096 1982 CAPLUS  
(41) Walls; US 4618562 1986 CAPLUS  
(42) Walls; US 4665124 1987 CAPLUS  
(43) Walls; US 5169897 1992 CAPLUS  
(44) Walls; US 5219699 1993 CAPLUS

L24 ANSWER 12 OF 45 CAPLUS COPYRIGHT 2005 ACS on STN  
AN 2000:642971 CAPLUS  
DN 133:230415  
ED Entered STN: 14 Sep 2000  
TI IR-sensitive composition and manufacture of **printing** plate using  
the same  
IN Hauck, Gerhard; Savariar-Hauck, Celin; **Timpe, Hans-Joachim**  
PA Kodak Polychrome Graphics G.m.b.H., Germany  
SO Ger. Offen., 12 pp.  
CODEN: GWXXBX  
DT Patent  
LA German  
IC ICM G03F007-038  
CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other  
Reprographic Processes)

FAN.CNT 1

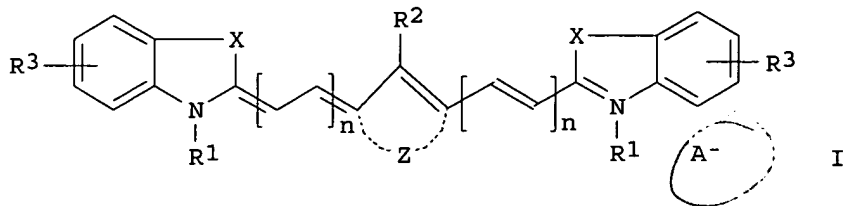
	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	DE 19906823	A1	20000914	DE 1999-19906823	19990218
	DE 19906823	C2	20020314		
PRAI	DE 1999-19906823		19990218		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
DE 19906823	ICM	G03F007-038
DE 19906823	ECLA	B41C001/10A

OS MARPAT 133:230415

GI



AB The invention relates to the IR-sensitive composition including the initiator system comprised of (a) IR-dye represented by general formula I (X = S, O, NR, C(alkyl)2; R1 = alkyl; R2 = halo, SR, OR, NR2; R3 = H, alkyl, OR, SR, NR2, halo; A- = anion; Z = atoms for forming 5- to 6-membered ring; R = alkyl, aryl, H; n = 0-3), (b) polyhaloalkyl-substituted compound, and (c) polycarboxylic acid. The composition shows high light stability, **printing** durability, and developer-resistance.

ST **photopolymer** initiator IR sensitive compn **printing**  
plate manuf

IT **Photoimaging** materials

(**photopolymerizable**; IR-sensitive composition containing specified  
**photopolymer**. initiator system for manufacturing **printing**

STN search for 10765,797

plate)  
IT Polymerization catalysts  
(**photopolymn.**; IR-sensitive composition containing specified  
**photopolymn.** initiator system for manufacturing **printing**  
plate)  
IT Printing plates  
(**photosensitive**; IR-sensitive composition containing specified  
**photopolymn.** initiator system for manufacturing **printing**  
plate)  
IT 1137-73-1, Anilinodiacetic acid 3584-23-4, 2-(4-Methoxyphenyl)-4,6-  
bis(trichloromethyl)-s-triazine 6542-67-2, 2,4,6-Tris(trichloromethyl)-s-  
triazine 17025-47-7, Tribromomethylphenylsulfone 145094-16-2,  
2-Phenyl-4,6-bis(chloromethyl)-s-triazine 205744-92-9 269401-43-6  
292047-58-6  
RL: CAT (Catalyst use); USES (Uses)  
(in **photopolymn.** initiator system in IR-sensitive composition for  
manufacturing **printing** plate)

RE.CNT 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD

RE

- (1) Anon; US 5496903 A CAPLUS
- (2) Anon; DE 69222987 T2
- (3) Anon; EP 730201 A1 CAPLUS

L24 ANSWER 13 OF 45 CAPLUS COPYRIGHT 2005 ACS on STN

AN 2000:366013 CAPLUS

DN 133:24691

ED Entered STN: 01 Jun 2000

TI Radiation-sensitive composition and its application to thermal imageable  
**printing** plate

IN Hauck, Gerhard; Savariar-Hauck, Celin; **Timpe, Hans-Joachim**

PA Kodak Polychrome Graphics G.m.b.H., Germany

SO Ger. Offen., 6 pp.

CODEN: GWXXBX

DT Patent

LA German

IC ICM G03F007-004

ICS G03F007-033; G03F007-039; B41M005-40

CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic and Other  
Reprographic Processes)

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	DE 19850181	A1	20000531	DE 1998-19850181	19981030
	DE 19850181	C2	20031204		
	US 2002012878	A1	20020131	US 1999-429531	19991028
PRAI	DE 1998-19850181	A	19981030		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
DE 19850181	ICM	G03F007-004
	ICS	G03F007-033; G03F007-039; B41M005-40
DE 19850181	ECLA	B41C001/10A
US 2002012878	ECLA	B41C001/10A

AB The radiation-sensitive composition comprises (i) a polymer binder, (ii) at  
least 1 compound capable of releasing an acid upon thermal development,  
(iii) at least 1 radiation-absorbing compound capable of converting the  
absorbed radiation into heat, and (iv) at least 1 crosslinkable  
multifunctional enol ether, wherein the binder is insol. in an aqueous alkali  
medium of  $\leq 13.5$  pH.

ST radiation sensitive compn **photoresist** binder thermal imageable

STN search for 10765,797

printing plate  
IT Lithographic plates  
Photoimaging materials  
Photoresists  
(radiation-sensitive composition and its application to thermal imageable printing plate)  
IT 134127-48-3 134127-48-3  
RL: TEM (Technical or engineered material use); USES (Uses)  
(IR-absorbing dye in radiation-sensitive composition for forming thermal imageable printing plate)  
IT 68900-98-1, MS PF6  
RL: TEM (Technical or engineered material use); USES (Uses)  
(acid generator in radiation-sensitive composition for forming thermal imageable printing plate)  
IT 59269-51-1, PVP-S 2-27062/34-3  
RL: TEM (Technical or engineered material use); USES (Uses)  
(binder in radiation-sensitive composition for forming thermal imageable printing plate)  
IT 130066-57-8, VEctomer 4010  
RL: TEM (Technical or engineered material use); USES (Uses)  
(crosslinkable multifunctional enol ether in radiation-sensitive composition for forming thermal imageable printing plate)  
IT 139301-16-9, CD 1012  
RL: TEM (Technical or engineered material use); USES (Uses)  
(photoacid generator in radiation-sensitive composition for forming thermal imageable printing plate)  
IT 7429-90-5, Aluminum, uses  
RL: TEM (Technical or engineered material use); USES (Uses)  
(substrate of thermal imageable printing plate)

RE.CNT 1 THERE ARE 1 CITED REFERENCES AVAILABLE FOR THIS RECORD

RE

(1) Anon; DE 19729067 A CAPLUS

L24 ANSWER 14 OF 45 CAPLUS COPYRIGHT 2005 ACS on STN

AN 2000:254092 CAPLUS

DN 132:294180

ED Entered STN: 20 Apr 2000

TI Poly(vinyl acetals) with imide groups and their use in photosensitive compositions

IN Baumann, Harald; Savariar-Hauck, Celin; Timpe, Hans-Joachim

PA Kodak Polychrome Graphics G.m.b.H., Germany

SO Ger. Offen., 9 pp.

CODEN: GWXXBX

DT Patent

LA German

IC ICM C08F226-06

ICS C08F216-02; C08F216-38

CC 35-8 (Chemistry of Synthetic High Polymers)

Section cross-reference(s): 74

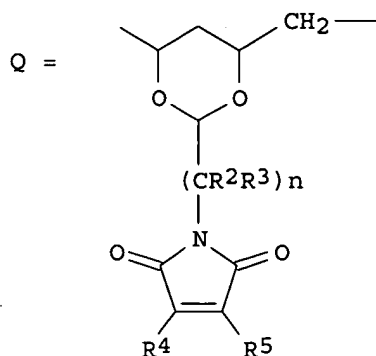
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
	-----	---	-----	-----	-----
PI	DE 19847616	A1	20000420	DE 1998-19847616	19981015
	EP 996037	A2	20000426	EP 1999-120000	19991014
	EP 996037	A3	20010221		
	EP 996037	B1	20030115		
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
	US 6087066	A	20000711	US 1999-418284	19991014
PRAI	DE 1998-19847616	A	19981015		

## CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
DE 19847616	ICM	C08F226-06
	ICS	C08F216-02; C08F216-38
DE 19847616	ECLA	C08F008/00+16/06; G03F007/038S
EP 996037	ECLA	C08F008/00+16/06; G03F007/038S
US 6087066	ECLA	C08F008/00+16/06; G03F007/038S

GI



AB The polymers, useful as binders in the manufacture of **printing** plates, comprise vinyl acetate units 0.5-20, vinyl alc. units 15-35, vinyl acetal units based on R1CHO [R1 = (carboxy-substituted) C1-4 alkyl, (un)substituted carboxyphenyl] 10-50, and Q units [R2, R3 = H, Me; R4, R5 = C1-4 alkyl, or R4R5 = C3-4 hydrocarbylene; n = 1-3] 25-70 weight%. Thus, 50 g Mowiol 8/88 was stirred for 15 h at 55-60° in a mixture of 220 g PROH and 140 g H2O, then acidified and treated with 2.0 g MeCHO and 49.5 g N-(4,4-diethoxybutyl)-3,4-dimethylmaleimide to give a polymer (I). I 5.35, Renol Blue B2G-HW 0.3, and Quantacure ITX 0.3 g were dissolved in 100 mL solvent (MeOH 45, MeOCH2CH2OH 30, and MEK 25 volume%), filtered, spread on an anodized Al foil, and dried to give a copier film (dry weight .apprx.1 g/m2), which was irradiated through a neg. and developed to provide a **printing** plate capable of producing 35,000 offset copies of good quality.

ST polyvinyl maleimidoalkanal binder **photosensitive**;  
**printing** plate **photosensitive** binder

IT Polyvinyl acetals

RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

((dimethylmaleimido)butyrals; poly(vinyl acetals) with imide groups for use in **photosensitive** compns.)

IT Polyvinyl acetals

RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

((dimethylmaleimido)propionals; poly(vinyl acetals) with imide groups for use in **photosensitive** compns.)

IT Polyvinyl acetals

RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

((tetrahydrophthalimido)propionals; poly(vinyl acetals) with imide groups for use in **photosensitive** compns.)

STN search for 10765,797

IT Lithographic plates  
(offset; poly(vinyl acetals) with imide groups for use in  
**photosensitive** compns. for preparation of)  
IT 181862-87-3P 181862-89-5P 264265-70-5P 264265-71-6P  
RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT  
(Reactant or reagent)  
(poly(vinyl acetals) with imide groups for use in  
**photosensitive** compns.)  
IT 766-39-2 935-79-5, cis-4-Cyclohexene-1,2-dicarboxylic anhydride  
6346-09-4, 4-Aminobutyraldehyde diethyl acetal 9002-89-5, Mowiol 5/88  
22483-09-6, 2-Aminoacetaldehyde dimethyl acetal 25213-24-5, Vinyl  
acetate-vinyl alcohol copolymer 41365-75-7, 3-Aminopropionaldehyde  
diethyl acetal  
RL: RCT (Reactant); RACT (Reactant or reagent)  
(poly(vinyl acetals) with imide groups for use in  
**photosensitive** compns.)

RE.CNT 8 THERE ARE 8 CITED REFERENCES AVAILABLE FOR THIS RECORD

RE

- (1) Brem; US 5651986 A 1997 CAPLUS
- (2) Burke; US 5552156 A 1996 CAPLUS
- (3) Cohen; US 5276019 A 1994 CAPLUS
- (4) Fleury; Spectrosc Biol Mol: Mod Trends 1997
- (5) Green; US 5583034 A 1996 CAPLUS
- (6) Jaxel; The Journal of Biological Chemistry 1991, V266(30), P20418 CAPLUS
- (7) Leteurtre; Biochemistry 1993, V32, P8955 CAPLUS
- (8) Shull; US 5677286 A 1997 CAPLUS

L24 ANSWER 15 OF 45 CAPLUS COPYRIGHT 2005 ACS on STN

AN 1999:819308 CAPLUS

DN 132:71387

ED Entered STN: 30 Dec 1999

TI Thermal imaging material for lithographic plate preparation

IN Shimazu, Ken-ichi; Patel, Jayanti; Saraiya, Shashikant; Merchant, Nishith;  
Savariar-Hauck, Celin; **Timpe, Hans-joachim**; McCullough,  
Christopher D.

PA Kodak Polychrome Graphics Llc, USA

SO PCT Int. Appl., 25 pp.

CODEN: PIXXD2

DT Patent

LA English

IC ICM B41M

CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other  
Reprographic Processes)

FAN.CNT 6

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
	-----	----	-----	-----	-----
PI	WO 9967097	A2	19991229	WO 1999-US12689	19990608
	W: JP				
	RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
	US 6352812	B1	20020305	US 1999-301866	19990429
	JP 2002518715	T2	20020625	JP 2000-555763	19990608
	EP 1506856	A2	20050216	EP 2004-78162	19990608
	R: BE, DE, ES, FR, GB, IT, NL, SE				
	EP 1506857	A2	20050216	EP 2004-78163	19990608
	R: BE, DE, ES, FR, GB, IT, NL, SE				
PRAI	US 1998-90300P	P	19980623		
	US 1999-301866	A	19990429		
	EP 1999-928429	A3	19990608		
	WO 1999-US12689	W	19990608		

## CLASS

PATENT NO. CLASS PATENT FAMILY CLASSIFICATION CODES

WO 9967097 ICM B41M

WO 9967097 ECLA B41C001/10A

US 6352812 ECLA B41C001/10A

AB A thermal imaging material which can be imaged by imagewise exposure with an IR laser or a thermal head and suited for lithog. plate preparation comprises a hydrophilic substrate and a two-layer coating. The first layer of the coating comprises an aqueous solution-developable polymer mixture containing a **photothermal** conversion material which is contiguous to the hydrophilic substrate. The second layer of the coating comprises one or more non-aqueous solution-soluble polymers which are soluble or dispersible

in a

solvent which does not dissolve the first layer. The material is exposed with an IR laser or a thermal head and upon development of the imaged material in an aqueous solution, the exposed portions are removed exposing hydrophilic substrate surfaces receptive to conventional aqueous fountain solns. The unexposed portions contain ink-receptive image areas. The second layer may also contain a **photothermal** conversion material.

ST IR laser thermal imaging material lithog plate prep

IT Lithographic plates

(IR-laser-sensitive thermal imaging materials with two polymer layers on hydrophilic substrates for preparation of)

IT Thermal **printing** materials

(IR-laser-sensitive; with two polymer layers on hydrophilic substrates for lithog. plate preparation)

IT Fluoropolymers, uses

RL: TEM (Technical or engineered material use); USES (Uses)

(MP 1100; IR-laser-sensitive thermal imaging materials for lithog. plate preparation with polymer layers containing)

IT Phenolic resins, uses

RL: TEM (Technical or engineered material use); USES (Uses)

(PN 430, SD 140; IR-laser-sensitive thermal imaging materials for lithog. plate preparation with polymer layers containing)

IT Carbon black, uses

RL: TEM (Technical or engineered material use); USES (Uses)

(Special Black 250; IR-laser-sensitive thermal imaging materials for lithog. plate preparation with polymer layers containing)

IT Polyvinyl acetals

RL: TEM (Technical or engineered material use); USES (Uses)

(carboxy-containing, T 71; IR-laser-sensitive thermal imaging materials for lithog. plate preparation with polymer layers containing)

IT Polyvinyl acetals

RL: TEM (Technical or engineered material use); USES (Uses)

(dimethylmaleimido-containing, AK 128; IR-laser-sensitive thermal imaging materials for lithog. plate preparation with polymer layers containing)

IT Recording materials

(thermal, IR-laser-sensitive; with two polymer layers on hydrophilic substrates for lithog. plate preparation)

IT 9011-14-7, Poly(methyl methacrylate)

RL: TEM (Technical or engineered material use); USES (Uses)

(A 21; IR-laser-sensitive thermal imaging materials for lithog. plate preparation with polymer layers containing)

IT 9003-53-6, Polystyrene 9004-38-0, Cellulose acetate phthalate

9004-70-0, E950 9010-88-2, Acryloid B-82 25608-33-7, Acryloid B-66

27029-76-1, PD 140A 58229-85-9, Acryloid B-44 73546-46-0D, reaction

products with mesitylenesulfonic acid 106209-33-0, SMA-1000

134127-48-3 253270-56-3, Carboset 500 253272-47-8, Nega 107

STN search for 10765,797

RL: TEM (Technical or engineered material use); USES (Uses)  
(IR-laser-sensitive thermal imaging materials for lithog. plate preparation  
with polymer layers containing)  
IT 9002-84-0  
RL: TEM (Technical or engineered material use); USES (Uses)  
(MP 1100; IR-laser-sensitive thermal imaging materials for lithog.  
plate preparation with polymer layers containing)  
IT 58748-38-2  
RL: TEM (Technical or engineered material use); USES (Uses)  
(National Starch 28-2930; IR-laser-sensitive thermal imaging materials  
for lithog. plate preparation with polymer layers containing)  
IT 9003-35-4, SD 140  
RL: TEM (Technical or engineered material use); USES (Uses)  
(PN 430, SD 140; IR-laser-sensitive thermal imaging materials for  
lithog. plate preparation with polymer layers containing)  
IT 58206-31-8  
RL: TEM (Technical or engineered material use); USES (Uses)  
(Scripset 540, Scripset 550; IR-laser-sensitive thermal imaging  
materials for lithog. plate preparation with polymer layers containing)

L24 ANSWER 16 OF 45 CAPLUS COPYRIGHT 2005 ACS on STN  
AN 1998:277534 CAPLUS  
DN 128:315151  
ED Entered STN: 14 May 1998  
TI Amido-substituted acetal polymers and their use in **photosensitive**  
compositions and lithographic **printing** plates  
IN Baumann, Harald; Dwars, Udo; Savariar-Hauck, Celin; **Timpe,**  
**Hans-Joachim**  
PA Sun Chemical Corporation, USA  
SO Eur. Pat. Appl., 24 pp.  
CODEN: EPXXDW  
DT Patent  
LA German  
IC ICM C08F008-28  
ICS C08F008-32; G03F007-021; G03F007-033  
CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other  
Reprographic Processes)  
Section cross-reference(s): 37  
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 838478	A1	19980429	EP 1997-118533	19971024
	EP 838478	B1	20020227		
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
	DE 19644515	A1	19980625	DE 1996-19644515	19961025
	ZA 9700154	A	19970716	ZA 1997-154	19970108
	CA 2194723	AA	19980426	CA 1997-2194723	19970109
	US 5925491	A	19990720	US 1997-781313	19970109
	AT 213747	E	20020315	AT 1997-118533	19971024
PRAI	DE 1996-19644515	A	19961025		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
EP 838478	ICM	C08F008-28
	ICS	C08F008-32; G03F007-021; G03F007-033
EP 838478	ECLA	C08F008/12+218/04; C08F008/28; C08F008/32+218/04; G03F007/021P2; G03F007/033
DE 19644515	ECLA	C08F008/12+218/04; C08F008/28; C08F008/32+218/04; G03F007/021P2; G03F007/033



STN search for 10765,797

US 5925491 ECLA C08F008/12+218/04; C08F008/28; C08F008/32+218/04;  
G03F007/021P2; G03F007/033

AB Vinyl binders with improved phys. properties for manufacture of lithog. **printing** plates contain ester, OH, acetal, and amide groups. A typical binder was manufactured by adding 0.7 g maleic anhydride (dissolved in 10 mL DMSO) and 0.9 g Ac2O (dissolved in 10 mL DMSO) to 10 g 96:4 (mol. ratio) vinyl alc.-vinylamine copolymer (mol. weight 36,000) dissolved in 80 mL DMSO at 10°, heating 30 min at 50°, adding 2.5 mL HCl (37%), 2.4 g AcH, and 3.9 g butyraldehyde dissolved in 10 mL DMSO in 30 min, and stirring 1 h at 50°.

ST amido acetal polymer binder lithog plate; butyralated vinyl alc vinylamine copolymer manuf; acetalated vinyl alc vinylamine copolymer manuf; acetylated vinyl alc vinylamine copolymer manuf; maleated vinyl alc vinylamine copolymer manuf

IT Binders

Lithographic plates

**Photoimaging materials**

(amido-substituted acetal polymers for binders in **photosensitive** compns. and lithog. **printing** plates)

IT 56-12-2DP, 4-Aminobutyric acid, reaction products with hydrolyzed vinyl acetate-crotonic acid copolymer and aldehydes 74-89-5DP, Methylamine, reaction products with hydrolyzed vinyl acetate-crotonic acid copolymer and aldehydes 75-07-0DP, Acetaldehyde, reaction products with acid anhydrides, vinylamine-vinyl alc. copolymers, and aldehydes, preparation 93-97-0DP, Benzoic anhydride, reaction products with acid anhydrides, vinylamine-vinyl alc. copolymers, and aldehydes 108-24-7DP, Acetic anhydride, reaction products with acid anhydrides, vinylamine-vinyl alc. copolymers, and aldehydes 108-31-6DP, Maleic anhydride, reaction products with acid anhydrides, vinylamine-vinyl alc. copolymers and aldehydes 123-72-8DP, Butyraldehyde, reaction products with acid anhydrides, vinylamine-vinyl alc. copolymers, and aldehydes 150-13-0DP, 4-Aminobenzoic acid, reaction products with hydrolyzed vinyl acetate-crotonic acid copolymer and aldehydes 156-87-6DP, 1-Amino-3-propanol, reaction products with hydrolyzed vinyl acetate-crotonic acid copolymer and aldehydes 25609-89-6DP, Mowilith CT5, hydrolyzed, reaction products with aldehydes and amines 29499-22-7DP, Vinylamine-vinyl alcohol copolymer, reaction products with aldehydes and acid anhydrides

RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(amido-substituted acetal polymers for binders in **photosensitive** compns. and lithog. **printing** plates)

RE.CNT 8 THERE ARE 8 CITED REFERENCES AVAILABLE FOR THIS RECORD  
RE

- (1) Anon; PATENT ABSTRACTS OF JAPAN 1983, V007(253), PP-235
- (2) Fuji Photo Film Co Ltd; EP 0208145 A CAPLUS
- (3) Hoechst Celanese Corp; DE 3720687 A CAPLUS
- (4) Hoechst Co American; EP 0211406 A CAPLUS
- (5) Kuraray Kk; JP 58137834 A 1983 CAPLUS
- (6) Pinschmidt, R; US 5086111 A CAPLUS
- (7) Sun Chemical Corp; EP 0752430 A CAPLUS
- (8) Sun Chemical Corp; DE 19525050 A CAPLUS

L24 ANSWER 17 OF 45 CAPLUS COPYRIGHT 2005 ACS on STN

AN 1998:210775 CAPLUS

DN 128:237244

ED Entered STN: 15 Apr 1998

TI Water-soluble and oxygen-impermeable polymeric coatings for **printing** plates

IN Baumann, Harald; Dwars, Udo; Savariar-Hauck, Celin M.; Pappas, Socrates

STN search for 10765,797

Peter; Timpe, Hans-Joachim

PA Sun Chemical Corp., USA

SO PCT Int. Appl., 36 pp.

CODEN: PIXXD2

DT Patent

LA English

IC ICM C08F008-12

ICS C09D129-04; C09D131-02; G03F007-09

CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9813394	A1	19980402	WO 1997-US17761	19970929
	W: US				
	RW: AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
	DE 19639897	A1	19980402	DE 1996-19639897	19960927
	ZA 9708728	A	19980327	ZA 1997-8728	19970929
	EP 917544	A1	19990526	EP 1997-910760	19970929
	EP 917544	B1	20021218		
	R: BE, DE, ES, FR, GB, IT, NL				
PRAI	DE 1996-19639897	A	19960927		
	WO 1997-US17761	W	19970929		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
WO 9813394	ICM	C08F008-12
	ICS	C09D129-04; C09D131-02; G03F007-09

AB Water-soluble oxygen-impermeable coatings possessing high **photosensitivity**, good resolution, good ink receptivity after development, long shelf life and good adhesion comprise repeating units CH<sub>2</sub>CH(OH), CH<sub>2</sub>CH(OCOR), and X (R = C1-8 alkyl; X = amino group connected to the polymer by a spacer or directly). The amine- and hydroxy-functional vinyl coatings are to be used in the production of lithog. **printing** plates. A polymer binder was prepared by reaction of Airvol 203 and 4-aminobutyraldehyde di-Me acetal.

ST amino hydroxy polymer binder coating; lithog **printing** plate coating binder; polyvinyl alc amino acetal reaction product

IT Lithographic plates

(water-soluble and oxygen-impermeable polymeric coatings for **printing** plates)

IT 100-10-7DP, 4-N,N-Dimethylaminobenzaldehyde, reaction products with poly(vinyl alc.) 122-07-6DP, reaction products with poly(vinyl alc.) 9002-89-5DP, reaction products with amino acetals 19060-15-2DP, 4-Aminobutyraldehyde dimethyl acetal, reaction products with poly(vinyl alc.) 115965-96-3DP, Airvol 203, reaction products with amino acetals RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(water-soluble and oxygen-impermeable polymeric coatings for **printing** plates)

IT 115965-96-3, Airvol 203 162747-25-3, Vinyl acetate-vinyl alcohol-vinylamine copolymer RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses)

(water-soluble and oxygen-impermeable polymeric coatings for **printing** plates)

RE.CNT 18 THERE ARE 18 CITED REFERENCES AVAILABLE FOR THIS RECORD

RE

(1) Agency Of Ind Science & Technol; JP 55023163 A 1980 CAPLUS

(2) Agfa Gevaert Ag; EP 0627656 A 1994 CAPLUS

STN search for 10765,797

- (3) Agfa Gevaert Ag; DE 4325015 A 1995 CAPLUS
- (4) Air Prod & Chem; EP 0339371 A 1989 CAPLUS
- (5) Air Prod & Chem; DE 4034543 A 1991 CAPLUS
- (6) Air Prod & Chem; DE 19516435 A 1995 CAPLUS
- (7) Anon; PATENT ABSTRACTS OF JAPAN 1980, V004(038), PC-004
- (8) Anon; PATENT ABSTRACTS OF JAPAN 1980, V004(050), PC-007
- (9) Anon; PATENT ABSTRACTS OF JAPAN 1987, V011(048), PM-561
- (10) Anon; PATENT ABSTRACTS OF JAPAN 1997, V097(003)
- (11) Fuji Photo Film Co Ltd; JP 08310123 A 1996 CAPLUS
- (12) Kuraray Co Ltd; JP 61211081 A 1986 CAPLUS
- (13) Minnesota Mining & Mfg; EP 0752622 A 1997 CAPLUS
- (14) Priest; US 2748103 A 1952 CAPLUS
- (15) Sekisui Chem Co Ltd; JP 55012171 A 1980
- (16) Sun Chemical Corp; EP 0752430 A 1997 CAPLUS
- (17) Sun Chemical Corp; EP 0757061 A 1997 CAPLUS
- (18) Wacker Chemie GmbH; EP 0632096 A 1995 CAPLUS

L24 ANSWER 18 OF 45 CAPLUS COPYRIGHT 2005 ACS on STN

AN 1997:215596 CAPLUS

DN 126:205500

ED Entered STN: 03 Apr 1997

TI Sulfonamide-substituted acetal polymer and its use in  
**photosensitive composition and lithographic printing**  
plate

IN **Timpe, Hans-Joachim**; Dwars, Udo; Baumann, Harald;  
Savariar-Hauck, Celin

PA Sun Chemical Corp., USA

SO Ger. Offen., 12 pp.

CODEN: GWXXBX

DT Patent

LA German

IC ICM C08F216-38

ICS C08F008-14; C08F008-34; C08L029-14; G03F007-032; G03F007-021

ICI C08F216-38, C08F216-06, C08F218-08; C08L029-14, C08L029-04, C08L031-04

CC 74-6 : (Radiation Chemistry, Photochemistry, and Photographic and Other  
Reprographic Processes)

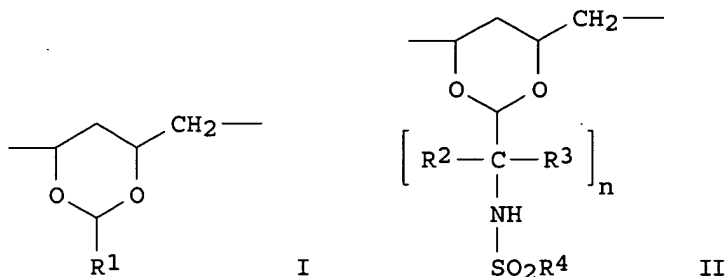
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
	-----	----	-----	-----	-----
PI	DE 19525050	A1	19970130	DE 1995-19525050	19950710
	DE 19525050	C2	19991111		
	CA 2180580	AA	19970111	CA 1996-2180580	19960705
	EP 757061	A2	19970205	EP 1996-111023	19960709
	EP 757061	A3	19980415		
	EP 757061	B1	20000913		
	R: AT, BE, CH, DE, DK, ES, FI, FR, GB, IT, LI, NL, PT, SE				
	AT 196299	E	20000915	AT 1996-111023	19960709
	ZA 9605867	A	19970617	ZA 1996-5867	19960710
	<u>US 5698360</u>	A	19971216	US 1996-677703	19960710
	US 5849842	A	19981215	US 1997-917057	19970822
PRAI	DE 1995-19525050	A	19950710		
	US 1996-677703	A3	19960710		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
-----	----	-----
DE 19525050	ICM	C08F216-38
	ICS	C08F008-14; C08F008-34; C08L029-14; G03F007-032; G03F007-021
	ICI	C08F216-38, C08F216-06, C08F218-08; C08L029-14, C08L029-04, C08L031-04

DE 19525050	ECLA	C08F008/34; G03F007/021P; G03F007/021P2; G03F007/033
EP 757061	ECLA	C08F008/34; G03F007/021P; G03F007/021P2; G03F007/033
US 5849842	ECLA	G03F007/021P; G03F007/033



Page 187by Examiner Cynthia Hamilton

STN search for 10765,797

SO Eur. Pat. Appl., 24 pp.  
CODEN: EPXXDW  
DT Patent  
LA English  
IC ICM C08F008-28  
ICS C08F008-30; C08F008-34; G03F007-021  
CC 35-8 (Chemistry of Synthetic High Polymers)  
Section cross-reference(s): 42, 74

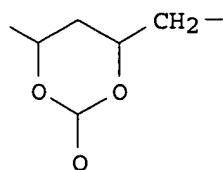
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 752430	A2	19970108	EP 1996-110895	19960705
	EP 752430	A3	19980415		
	EP 752430	B1	20000920		
	R: AT, BE, CH, DE, DK, ES, FI, FR, GB, IT, LI, NL, PT, SE				
	DE 19524851	A1	19970109	DE 1995-19524851	19950707
	DE 19524851	C2	19980507		
	ZA 9605647	A	19970606	ZA 1996-5647	19960703
	US 5700619	A	19971223	US 1996-675024	19960703
	CA 2180581	AA	19970108	CA 1996-2180581	19960705
	AT 196481	E	20001015	AT 1996-110895	19960705
	ES 2151625	T3	20010101	ES 1996-110895	19960705
	US 5985996	A	19991116	US 1997-917631	19970822
PRAI	DE 1995-19524851	A	19950707		
	US 1996-675024	A3	19960703		

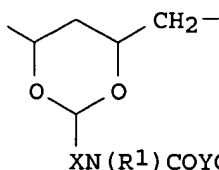
CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
EP 752430	ICM	C08F008-28
	ICS	C08F008-30; C08F008-34; G03F007-021
EP 752430	ECLA	C08F008/00+16/06; G03F007/021P2
DE 19524851	ECLA	C08F008/00+16/06; G03F007/021P2
US 5985996	ECLA	G03F007/021P2

GI



I



II

AB A binder containing the units A moiety of vinyl alc. 10-60 mol% and units B of CH<sub>2</sub>CH(OCOR<sub>2</sub>) 1-30 mol% and acetal units C of I (Q = R<sub>3</sub>) 5-60 mol% and acetal units D of I (Q = R<sub>4</sub>) 0-60 mol% and acetal units E of II 1-40 mol%, where X = an aliphatic, aromatic or araliph. spacer group, R<sub>1</sub> = H or an aliphatic, aromatic or araliph. group, R<sub>2</sub>, R<sub>3</sub> and R<sub>4</sub> = H or C<sub>1</sub>-18-alkyl, and Y = a saturated or unsatd. chain- or ring-shaped spacer group was prepared The binder and its **photosensitive** composition are improved in **photosensitivity**, ink receptivity, and increased number of prints. Thus Mowiol 8/88 was first acetylated with butyraldehyde and acetaldehyde and this acetal polymer was then treated with the reaction product of maleic anhydride with 2-(N-methylamino)acetaldehyde di-Me acetal stirred at 60° for 24 h to give a binder having acid number 21 mg KOH/g. A **photosensitive** coating for making **printing** plates

STN search for 10765,797

comprises the above binder, condensant of 3-methoxydiphenylamine-4-diazonium sulfate and 4,4'-bismethoxymethyldiphenyl ether, Cu phthalocyanine pigment, phenyl-azo-diphenylamine, and H3PO4 and solvent.

ST acetal polymer acid functional **photosensitive** coating; polyvinyl alc acetal modified binder manuf; lithog **printing** plate **photosensitive** coating

IT Lithographic plates  
(acetal polymers and their use in **photosensitive** compns. and lithog. **printing** plates)

IT Polyvinyl acetals  
RL: IMF (Industrial manufacture); RCT (Reactant); TEM (Technical or engineered material use); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)  
(butyrals, reaction product with carboxy group bearing acetal; acetal polymers and their use in **photosensitive** compns. and lithog. **printing** plates)

IT Coating materials  
Coating materials  
(light-sensitive; acetal polymers and their use in **photosensitive** compns. and lithog. **printing** plates)

IT 9002-89-5, Poly(vinyl alcohol)  
RL: RCT (Reactant); RACT (Reactant or reagent)  
(acetylation and reaction with carboxy group bearing acetal compound; acetal polymers and their use in **photosensitive** compns. and lithog. **printing** plates)

IT 186903-33-3P 186903-34-4P 186903-35-5P  
RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)  
(preparation and reaction with vinyl acetal polymer)

IT 85-43-8 85-44-9, 1,3-Isobenzofurandione 108-31-6, 2,5-Furandione, reactions  
RL: RCT (Reactant); RACT (Reactant or reagent)  
(reaction with (methylamino)acetaldehyde di-Me acetal)

IT 122-07-6  
RL: RCT (Reactant); RACT (Reactant or reagent)  
(reaction with carboxylic anhydride)

L24 ANSWER 20 OF 45 CAPLUS COPYRIGHT 2005 ACS on STN

AN 1997:55895 CAPLUS

DN 126:111031

ED Entered STN: 27 Jan 1997

TI **Photosensitive** composition and **printing** plate making  
using the same

IN Savariar-Hauck, C.; Baumann, H.; Timpe, H. J.; Dwars, U.

PA Sun Chemical Corp., USA

SO Ger. Offen., 14 pp.

CODEN: GWXXBX

DT Patent

LA German

IC ICM G03F007-032

ICS G03F007-028; G03F007-021; C08L101-02; C08L001-10; C08L029-04;

C08L029-14; C08L031-04; C08L061-20; C08F002-50

CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
	-----	----	-----	-----	-----
PI	DE 19518118	A1	19961121	DE 1995-19518118	19950517
	DE 19518118	C2	19980618		
	EP 749045	A2	19961218	EP 1996-107762	19960515

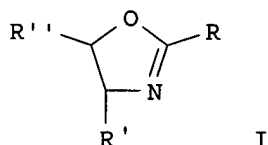
STN search for 10765,797

EP 749045	A3	19971112		
EP 749045	B1	20010314		
R: AT, BE, CH, DE, DK, ES, FI, FR, GB, IT, LI, NL, PT, SE				
AT 199785	E	20010315	AT 1996-107762	19960515
CA 2176873	AA	19961118	CA 1996-2176873	19960517
ZA 9603969	A	19970226	ZA 1996-3969	19960517
US 5695905	A	19971209	US 1996-649350	19960517
PRAI DE 1995-19518118	A	19950517		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
DE 19518118	ICM	G03F007-032
	ICS	G03F007-028; G03F007-021; C08L101-02; C08L001-10; C08L029-04; C08L029-14; C08L031-04; C08L061-20; C08F002-50
DE 19518118	ECLA	C08L001/10; C08L029/14; C09D101/10; G03F007/012P; G03F007/032; G03F007/033
EP 749045	ECLA	C08L001/10; C08L029/14; C09D101/10; G03F007/012P; G03F007/032; G03F007/033
US 5695905	ECLA	C08L001/10; C08L029/14; C09D101/10; G03F007/012P; G03F007/032; G03F007/033

GI



AB In the title composition comprising (A) a diazonium polycondensation product and/or a radical polymerizable system and (B) a binder, the binder is a reaction product between a carboxyl group containing polymer P(XCOOH)<sub>n</sub> [P = polymer; n = number; X = single bond, spacer group] and a 2-oxazoline(s) I [R = alkyl, aryl, aralkyl, alkoxy, aryloxy, aralkyloxy; R', R'' = H, alkyl, aryl].

ST **photosensitive** compn binder **printing** plate

IT Polyvinyl butyrals  
 RL: DEV (Device component use); USES (Uses)  
 (Mowital B 60T; binder of **photosensitive** composition)

IT Polyurethanes, uses  
 RL: DEV (Device component use); USES (Uses)  
 (acrylates; radical polymerizable system of **photosensitive** composition)

IT **Photoresists**  
**Printing** plates  
 (**photosensitive** composition and **printing** plate making using the same)

IT 108-31-6D, 2,5-Furandione, reaction products with polyvinylbutyral, uses 699-98-9D, Pyridine-2,3-dicarboxylic acid anhydride, reaction products with polyvinylbutyral 7127-19-7D, reaction products with carboxyl group containing polymer 9004-38-0D, CAP, reaction products with 2-phenyl-Δ<sup>2</sup>-oxazoline 10431-98-8D, reaction products with carboxyl group containing polymer 58206-31-8D, Scripset 540, reaction products with 2-phenyl-Δ<sup>2</sup>-oxazoline  
 RL: DEV (Device component use); USES (Uses)  
 (binder of **photosensitive** composition)

IT 71510-01-5 123893-60-7

STN search for 10765,797

RL: DEV (Device component use); USES (Uses)  
(diazonium polycondensation product of **photosensitive** composition)

IT 3179-31-5, 3-Mercapto-1,2,4-triazole 54537-15-4,  
Diethylaminobenzophenone 60506-81-2, Dipentaerythritolpentaacrylate  
69432-40-2, 2-(4-Methoxynaphtho-1-yl)-4,6-bis-(trichloromethyl)-s-triazine  
185396-46-7

RL: DEV (Device component use); USES (Uses)  
(radical polymerizable system of **photosensitive** composition)

L24 ANSWER 21 OF 45 CAPLUS COPYRIGHT 2005 ACS on STN

AN 1996:130814 CAPLUS

DN 124:189526

ED Entered STN: 05 Mar 1996

TI Visible radiation-sensitive composition and recording material producible  
therefrom.

IN Baumann, Harald; Timpe, Hans-Joachim; Herting, Hand-Peter

PA Sun Chemical Corp., USA

SO Eur. Pat. Appl., 12 pp.

CODEN: EPXXDW

DT Patent

LA English

IC ICM G03F007-029

CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic and Other  
Reprographic Processes)

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 684522	A1	19951129	EP 1995-108090	19950526
	EP 684522	B1	19990506		
	EP 684522	B2	20030924		
	R: AT, BE, CH, DE, DK, ES, FR, GB, IT, LI, NL, PT, SE				
	DE 4418645	C1	19951214	DE 1994-4418645	19940527
	US 6051366	A	20000418	US 1995-450968	19950525
	CA 2150341	AA	19951128	CA 1995-2150341	19950526
	AT 179804	E	19990515	AT 1995-108090	19950526
PRAI	DE 1994-4418645	A	19940527		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
EP 684522	ICM	G03F007-029
EP 684522	ECLA	G03F007/029
DE 4418645	ECLA	G03F007/029
US 6051366	ECLA	G03F007/029

AB A visible radiation-sensitive composition is described which comprises a binder, one or more polymerizable compds. containing at least one polymerizable group, and one or more dyes having an absorption range in the emission range of the radiation source, characterized in that said composition comprises as an initiator an initiator system consisting of a metallocene as a **photoinitiator** and an onium compound as a coinitiator. The visible radiation-sensitive composition shows an increased radiation sensitivity compared to the known radiation-sensitive compns. and is especially suitable for recording materials such as **printing** plates, which can, in particular, be exposed by means of laser radiation in the visible range.

ST visible **photopolymerizable** compn **photoresist**  
**printing** plate; metallocene onium compd visible  
**photopolymerizable** compn

IT **Photoimaging** compositions and processes  
(visible light-sensitive **photopolymerizable** compns. containing  
metallocene and onium salt initiators as)



STN search for 10765,797

IT Lithographic plates  
    **Printing plates**  
        (visible light-sensitive **photopolymerizable** compns. containing  
          metallocene and onium salt initiators for manufacture of)

IT Resists  
    (**photo-**, visible light-sensitive **photopolymerizable**  
      compns. containing metallocene and onium salt initiators as)

IT 818-61-1D, reaction products with Desmodur N 100 and pentaerythritol  
    triacylate 3524-68-3D, Pentaerythritol triacylate, reaction products  
    with Desmodur N 100 and hydroxyethyl acrylate 53200-31-0D, Desmodur N  
    100, reaction products with hydroxyethyl acrylate and pentaerythritol  
    triacylate  
    RL: RCT (Reactant); TEM (Technical or engineered material use); RACT  
    (Reactant or reagent); USES (Uses)  
        (visible light-sensitive **photopolymerizable** compns. containing  
          metallocene and onium salt initiators and)

IT 81-88-9, Rhodamine B 989-38-8, Rhodamine 6G 6359-04-2, Methyleosin  
    6359-05-3, Ethyleosin 25035-81-8, Methacrylic acid-methyl  
    methacrylate-styrene copolymer 60506-81-2, Dipentaerythritol  
    pentaacrylate 161279-62-5, Joncryl 683  
    RL: TEM (Technical or engineered material use); USES (Uses)  
        (visible light-sensitive **photopolymerizable** compns. containing  
          metallocene and onium salt initiators and)

IT 459-64-3, 4-Methoxybenzenediazonium tetrafluoroborate 12097-97-1  
    12155-89-4, Bis(cyclopentadienyl)bis(pentafluorophenyl)titanium  
    53920-49-3, N-Methoxypyridinium p-toluenesulfonate 74227-35-3,  
    Bis[4-diphenylsulfonio)phenyl]sulfide bis hexafluorophosphate 97671-66-4  
    125051-32-3 173921-11-4 173921-12-5 173921-13-6  
    RL: TEM (Technical or engineered material use); USES (Uses)  
        (visible light-sensitive **photopolymerizable** compns. using  
          initiator compns. containing)

L24 ANSWER 22 OF 45 CAPLUS COPYRIGHT 2005 ACS on STN

AN 1995:389605 CAPLUS

DN 122:226851

ED Entered STN: 04 Mar 1995

TI Light-sensitive compositions, their use as coatings for **printing**  
    plates, and the **printing plates**

IN Savariar-Hauck, Celin Mary; Herting, Hans-Peter; **Timpe,**  
    **Hans-Joachim**

PA Polychrome GmbH, Germany

SO Ger., 7 pp.

CODEN: GWXXAW

DT Patent

LA German

IC ICM G03F007-021

ICS G03F007-105; C08L061-20; C08L079-00; B41C003-06

ICI C08L035-00, C08L023-00, C08L025-00

CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other  
    Reprographic Processes)

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	DE 4311738	C1	19940505	DE 1993-4311738	19930408
PRAI	DE 1993-4311738		19930408		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
DE 4311738	ICM	G03F007-021
	ICS	G03F007-105; C08L061-20; C08L079-00; B41C003-06

STN search for 10765,797

ICI C08L035-00, C08L023-00, C08L025-00

AB The title compns. comprise a mixture having as major components: (a) a diazonium polycondensation product or a mixture of a diazonium polycondensation product and a diazonium salt; (b) a polymer with a weight average mol. weight of  $\geq 150,000$  g/mol and produced by esterification of a copolymer of an intramol. anhydride and an organic unsatd. compound by ring opening with an unsatd. alc. or a saturated alc.; and (c)  $\geq 1$  sensitizers. The composition can be used to produce a **printing** plates with high wear resistance and high sensitivity.

ST **photosensitive** compn **printing** plate; diazonium compd  
polymer ester **photosensitive** compn

IT **Printing** plates

(**photosensitive** composition for high wear resistance)

IT 2509-26-4D, 4,4'-Bismethoxymethyl diphenyl ether, polycondensation product with 2-methoxydiphenylamine-4-diazonium sulfate 9038-42-0 29377-89-7D, polycondensation product with 4,4'-bismethoxymethyl di-Ph ether 39279-94-2 51204-92-3 67527-24-6 162031-69-8 162031-71-2

RL: DEV (Device component use); MOA (Modifier or additive use); USES (Uses)

(**photosensitive** composition)

L24 ANSWER 23 OF 45 CAPLUS COPYRIGHT 2005 ACS on STN

AN 1994:617291 CAPLUS

DN 121:217291

ED Entered STN: 29 Oct 1994

TI Chemical aspects of offset **printing**

AU Baumann, Harald; **Timpe, Hans-Joachim**

CS Div. Res. and Dev., Polychrome GmbH, Osterode, Germany

SO Journal fuer Praktische Chemie/Chemiker-Zeitung (1994), 336(5), 377-89

CODEN: JPCCEM; ISSN: 0941-1216

DT Journal; General Review

LA English

CC 74-0 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

AB In the last ten years, offset **printing** has achieved the broadest application on the **printing** market due to its inherent advantages. Light sensitive offset plates for contact UV exposure are mainly used at present. The chemical of UV exposure are mainly used at present. The chemical of these plates are based on the **photoreactions** of quinone diazides, diazo resins and radical **photopolymers**. For the further development of offset **printing** plates the improve of the light sensitivity and extension of spectral sensitivity to the visible range is a market-driven requirement to realize transfer of computer stored information by laser. For this requirement electrophotog. systems, systems based on silver halides and **photoinduced** polymns. are most important. New literature data dealing with these systems in relation to **printing** plates are summarized. 106 Refs.

ST review offset **printing**

IT Lithographic plates

Lithography

(offset)

L24 ANSWER 24 OF 45 CAPLUS COPYRIGHT 2005 ACS on STN

AN 1994:204204 CAPLUS

DN 120:204204

ED Entered STN: 16 Apr 1994

TI Modern plates for offset **printing**

AU Baumann, H.; Herting, H. P.; **Timpe, H. J.**

CS Polychrome GmbH, Osterode, D-3360, Germany

STN search for 10765,797

SO Journal of Information Recording Materials (1993), 20(4), 301-23  
CODEN: JIRMEA; ISSN: 0863-0453  
DT Journal; General Review  
LA English  
CC 74-0 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)  
AB In the last 10 yr, offset **printing** has achieved the broadest applications on the **printing** market due to its inherent advantages. For the further development of offset **printing** plates the improvement of light sensitivity and the extension of spectral sensitivity to the visible range is a market-driven requirement. This includes the possibility of transferring computer stored information by laser. For this requirement electrophotog. systems and systems based on silver halides and **photoinduced** polymerization represent most importance. New literature data dealing with these systems in relation to **printing** plates are summarized. 62 Refs.  
ST review offset **printing** plate computer application; electrophotog offset **printing** plate review; **photopolymn** offset **printing** plate review; **photog** offset **printing** plate computer review  
IT **Photolysis**  
(offset **printing** plate preparation using)  
IT Electrophotographic **photoconductors** and **photoreceptors**  
(offset **printing** plates using)  
IT Lithographic plates  
(offset, new methods for preparation of, based on **photopolymn.** and electrophotog. and silver halide **photog.**)  
IT Polymerization  
(**photochem.**, offset **printing** plate preparation using)

L24 ANSWER 25 OF 45 CAPLUS COPYRIGHT 2005 ACS on STN

AN 1992:265682 CAPLUS

DN 116:265682

ED Entered STN: 27 Jun 1992

TI **Photocrosslinkable** silicones

IN Mueller, Uwe; Timpe, Hans Joachim; Peters, Kay; Neuenfeld, Judith; Roesler, Harald; Wendt, Heinz Dieter

PA Chemiewerk Nuenchritz G.m.b.H., Germany

SO Ger. (East), 4 pp.

CODEN: GEXXA8

DT Patent

LA German

IC ICM G03F007-075

ICS C08G077-04

CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI DD 298700	A5	19920305	DD 1988-322924	19881209
PRAI DD 1988-322924		19881209		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
DD 298700	ICM	G03F007-075
	ICS	C08G077-04

OS MARPAT 116:265682

AB A **photocrosslinkable** silicone contains a alkenyl group-containing polyorganosiloxane, a carbonyl group-containing **photoinitiator**, and a crosslinking agent, and the initiators having a triplet energy of

STN search for 10765,797

$\geq 250$  kJ/mol are  $R_1R_2CHOSiR_3R_4(OCHR_1R_2)$  ( $R_1,2 = H, C1-4\text{-alkyl}$ ;  $R_3,4 = OCHR_1R_2, C1-4\text{-alkyl}$ ). The composition is useful for preparing **photoconductor** in a fabrication of **printing** switch and relief pattern for **printing** plates.

ST **printing** plate **photocrosslinkable** silicone;  
**photoinitiator** silicone compn

IT **Printing** plates  
(**photocrosslinkable** silicone composition for)

IT Siloxanes and Silicones, uses  
RL: USES (Uses)  
(**photocrosslinkable**, for fabrication of **printing** plates)

IT 78-07-9, Triethoxyethylsilane 78-10-4, Tetraethoxysilane 90-44-8, Anthrone 90-47-1, Xanthone 98-86-2, Acetophenone, uses 119-53-9, Benzoin 119-61-9, Benzophenone, uses 134-84-9 682-01-9, Tetrapropoxysilane 1992-48-9, Tetraisopropoxysilane 2550-02-9, Triethoxypropylsilane 4766-57-8, Tetrabutoxysilane 6652-28-4, Benzoin isopropyl ether 19811-05-3, 2,4-Dichlorobenzophenone  
RL: USES (Uses)  
(**photocrosslinkable** silicone composition containing, for **printing** plate fabrication)

L24 ANSWER 26 OF 45 CAPLUS COPYRIGHT 2005 ACS on STN

AN 1992:265681 CAPLUS

DN 116:265681

ED Entered STN: 27 Jun 1992

TI **Photocrosslinkable** silicones

IN Mueller, Uwe; Timpe, Hans Joachim; Peters, Kay; Neuenfeld, Judith; Roesler, Harald; Wendt, Heinz Dieter

PA Chemiewerk Nuenchritz G.m.b.H., Germany

SO Ger. (East), 4 pp.

CODEN: GEXXA8

DT Patent

LA German

IC ICM G03F007-075

ICS C08G077-04

CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

Section cross-reference(s): 35

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	DD 298701	A5	19920305	DD 1988-322925	19881209
PRAI	DD 1988-322925		19881209		

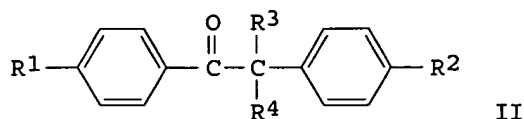
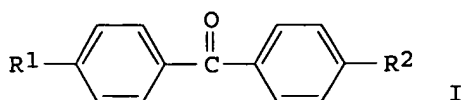
CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
DD 298701	ICM	G03F007-075
	ICS	C08G077-04

OS MARPAT 116:265681

GI

STN search for 10765,797



AB A **photo-crosslinkable** silicone contains a polyorganosiloxane having  $\geq 2$  unsatd. groups, a polyorganosiloxane having  $\geq 2$  Si-H groups as a crosslinking agent, and a **photoinitiator** composition containing I and/or II and a silane SiR<sub>5</sub>R<sub>6</sub>R<sub>7</sub> (III) (R<sub>1,2</sub> = H, alkyl, halo; R<sub>3,4</sub> = H, alkyl, alkoxy, aryl, aryloxy, halo, OH, SO<sub>2</sub>-aryl; R<sub>5,6,7</sub> = alkyl, aryl, alkoxy, aryloxy) at a I and/or II to III ratio of (10:1)-(1:20). The composition is useful for preparing **photoconductor** in a fabrication of **printing** switch and relief pattern for **printing** plates.

ST **printing** plate **photocrosslinkable** silicone;  
**photoinitiator** silicone compn

IT **Printing** plates  
(**photocrosslinkable** silicone composition for)

IT Siloxanes and Silicones, uses  
RL: USES (Uses)  
(**photocrosslinkable**, for fabrication of **printing** plates)

IT 119-61-9, Benzophenone, uses 134-84-9, p-Methylbenzophenone 617-86-7,  
Triethylsilane 766-77-8, Phenyltrimethylsilane 998-30-1,  
Triethoxysilane 6652-28-4, Benzoin isopropyl ether 24650-42-8  
RL: USES (Uses)  
(**photoinitiator** composition containing, for preparation of **photocrosslinkable** silicones)

L24 ANSWER 27 OF 45 CAPLUS COPYRIGHT 2005 ACS on STN

AN 1992:31427 CAPLUS

DN 116:31427

ED Entered STN: 24 Jan 1992

TI Spectrally sensitized **photopolymerizable** material

IN Ulrich, Sven; **Timpe, Hans Joachim**; Reichmuth, Klaus; Moeckel, Peter

PA Technische Hochschule "Carl Schorlemmer" Leuna-Merseburg, Germany

SO Ger. (East), 4 pp.

CODEN: GEXXA8

DT Patent

LA German

IC ICM G03C001-68

CC 74-4 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

FAN.CNT 1

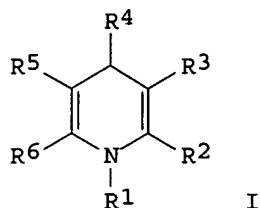
	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	DD 287796	A5	19910307	DD 1989-332618	19890914
PRAI	DD 1989-332618		19890914		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
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STN search for 10765,797

DD 287796 ICM G03C001-68  
OS MARPAT 116:31427  
GI



AB The title material comprises a radical or cationic polymerizable monomer, a 1,4-dihydropyridine, a coinitiator, a binder, and optionally an additive, where the dihydropyridine is I [R1 = H, alkyl, aralkyl, R11CO (R11 = alkyl, aralkyl); R2, R6 = H, alkyl; R3, R5 = CnHn+1OCO, CnHn+1CO, COOH, CONR7R8 (R7, R8 = H, alkyl, aralkyl), CN; R4 = H, alkyl, aralkyl, Ph ring (substituted with halogens, NO2, alkyl, or alkoxy), furanyl], and the coinitiator is R12(R13)p(R14)q m+ Z- [R12, R13, R14 = alkyl, aryl, aralkyl; m = I, Cl, Br, S, Se, Te; Z = anion; p = 0-2; q = 1-2]. In particular, 2,6-dimethyl-3,5-diethoxycarbonyl-4-methyl-1,4-dihydropyridine and diphenyliodonium tetrafluoroborate were used. The **photoinitiator** system can be used for neg. working material as well as for **printing** plates.

ST **photoinitiator** hydropyridine onium salt; **printing** plate **photopolymerizable** compn

IT **Printing** plates

(**photopolymerizable** composition for, dihydropyridine compound and onium salts in)

IT **Photoimaging** compositions and processes

(neg.-working, dihydropyridine compound and onium salts in)

IT Polymerization catalysts

(**photochem.**, dihydropyridine compound and onium salts as)

IT 313-39-3, Diphenyliodonium tetrafluoroborate 437-13-8,  
Triphenylsulfonium tetrafluoroborate 131267-17-9

RL: USES (Uses)

(**photoinitiator** system containing dihydropyridine compound and)

IT 632-93-9 1149-23-1 35929-79-4 42972-34-9 70677-78-0

RL: USES (Uses)

(**photoinitiator** system containing onium compound and)

L24 ANSWER 28 OF 45 CAPLUS COPYRIGHT 2005 ACS on STN

AN 1991:33161 CAPLUS

DN 114:33161

ED Entered STN: 26 Jan 1991

TI Positive-working silver-free **photosensitive** material

IN Rautschek, Holger; **Timpe, Hans Joachim**; Mueller, Christine;  
Heller, Volkmar

PA Institut fuer Grafische Technik Forschungsinstitut der Polygrafischen  
Industrie, Ger. Dem. Rep.

SO Ger. (East), 4 pp.

CODEN: GEXXA8

DT Patent

LA German

IC ICM G03C001-495

ICS G03F007-10

STN search for 10765,797

CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	DD 275748	A1	19900131	DD 1988-319936	19880920
PRAI	DD 1988-319936		19880920		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
DD 275748	ICM	G03C001-495
	ICS	G03F007-10

AB A pos.-working Ag-free **photosensitive** material for use as a recording material or a **photoresist** or production of a **printing** plate, projection slide, or printed circuit comprises a support with  $\geq 1$  **photosensitive** layer containing a novolak resin obtained by condensation of  $\geq 1$  phenol with  $\geq 1$  aldehyde and  $\geq 1$  compound or combination of compds. that form upon exposure to light a protonic or Lewis acid that decomp. the novolak resin without the formation of gaseous products. Thus, a mech. roughened Al plate was coated with composition containing PLastaresin 205, a carboxyl group-terminated  $\alpha$ -methylstyrene oligomer, Michler's ketone, benzophenone, dicumyliodonium chloride, and MeCOEt, exposed, and developed to give a lithog. plate. The resulting lithog. plate was capable of **printing** 15,000 prints of constant good quality.

ST pos **photosensitive** compn lithog plate; silverfree pos

**photosensitive** compn

IT Lithographic plates

(pos.-working **photosensitive** compns. for fabrication of)

IT Projection slides

(pos.-working **photosensitive** compns. for production of)

IT Phenolic resins, uses and miscellaneous

RL: USES (Uses)

(novolak, pos.-working **photoimaging** compns. containing)

IT Lithographic plates

(offset, pos.-working **photosensitive** compns. for fabrication of)

IT Resists

(**photo**-, pos.-working, **photosensitive** compns. for)

IT **Photoimaging** compositions and processes

(pos.-working, **photosensitive** compns. for)

IT Audio-visual aids

(projection slides, pos.-working **photosensitive** compns. for production of)

IT 9003-35-4, Formaldehyde-phenol copolymer

RL: USES (Uses)

(novolak, pos.-working **photosensitive** compns. containing, for offset lithog. plate fabrication)

IT 90-94-8, Michler's ketone 119-61-9, Benzophenone, uses and miscellaneous

548-62-9, Crystal violet 25014-31-7D, Poly( $\alpha$ -methylstyrene),

carboxylated 26708-04-3, 2-Ethyl-9,10-dimethoxyanthracene 75009-76-6

101802-52-2, Plastaresin 205 114238-65-2 131094-43-4, M-Sconresin 210

131267-17-9

RL: USES (Uses)

(pos.-working **photoimaging** compns. containing)

IT 120-12-7, Anthracene, uses and miscellaneous 73166-48-0 126139-90-0

RL: USES (Uses)

(pos.-working **photosensitive** compns. containing, for offset lithog. plate fabrication)

IT 2150-48-3, Pyronine B 118168-67-5 131267-18-0

STN search for 10765,797

RL: USES (Uses)

(pos.-working **photosensitive** compns. containing, for projection  
slide production)

L24 ANSWER 29 OF 45 CAPLUS COPYRIGHT 2005 ACS on STN

AN 1990:226823 CAPLUS

DN 112:226823

ED Entered STN: 09 Jun 1990

TI **Photopolymerizable** material for **photoresists** and  
**printing** plates

IN Rautschek, Holger; **Timpe, Hans Joachim**; Mueller, Christine;  
Heller, Volkmar

PA Institut fuer Grafische Technik Forschungsinstitut der Polygrafischen  
Industrie, Ger. Dem. Rep.

SO Ger. Offen., 4 pp.

CODEN: GWXXBX

DT Patent

LA German

IC ICM G03F007-10

ICS C08F002-50; C08G059-68; C08L025-16; C08L025-08

CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other  
Reprographic Processes)

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	DE 3908757	A1	19891019	DE 1989-3908757	19890317
	HU 51395	A2	19900428	HU 1989-1662	19890406
PRAI	DD 1988-314443	A	19880406		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
DE 3908757	ICM	G03F007-10
	ICS	C08F002-50; C08G059-68; C08L025-16; C08L025-08

AB **Photopolymerizable** materials for the production of **printing**  
plates and the like consist of an underlayer, a **photosensitive**  
layer containing a cationically polymerizable monomer, an initiator system  
that forms a Lewis or Broensted acid upon irradiation, and a binder that is  
free of strongly nucleophilic groups and COOH groups, and an auxiliary  
layer. Thus, a mech. roughened and anodized Al plate was overcoated with  
a mixture containing the epoxy resin M 545, mono-Bu maleate- $\alpha$ -  
methylstyrene copolymer, anthracene, dicumyliodonium hexafluorophosphate,  
and Me<sub>2</sub>CO, dried, imagewise exposed, and then developed with a 0.5% aqueous  
Na<sub>2</sub>CO<sub>3</sub> solution to give a **printing** plate.

ST **photopolymerizable** material **printing** plate  
**photoresist**

IT Epoxides

Epoxy resins, uses and miscellaneous

Ketones, uses and miscellaneous

RL: USES (Uses)

(**photopolymerizable** compns. containing, for **photoresists**  
and **printing** plate fabrication)

IT **Printing** plates

(**photopolymerizable** compns. for fabrication of)

IT Phenolic resins, uses and miscellaneous

RL: USES (Uses)

(epoxy, novolak, **photopolymerizable** compns. containing, for  
**photoresists** and **printing** plate fabrication)

IT Onium compounds

RL: USES (Uses)

(iodonium, **photopolymerizable** compns. containing, for



STN search for 10765,797

photoresists and printing plate fabrication)  
IT Lithographic plates  
(offset, photopolymerizable compns. for fabrication of)  
IT Epoxy resins, uses and miscellaneous  
RL: USES (Uses)  
(phenolic, novolak, photopolymerizable compns. containing, for  
photoresists and printing plate fabrication)  
IT Resists  
(photo-, photopolymerizable compns. for)  
IT 25014-31-7D, Poly( $\alpha$ -methylstyrene), carboxyl group-terminated  
RL: USES (Uses)  
(photopolymerizable compns. containing oligomeric, for  
photoresists and printing plate fabrication)  
IT 84-11-7, Phenanthrenequinone 90-47-1, Xanthone 90-94-8, Michler's  
ketone 115-77-5D, glycidyl ethers 119-61-9, Benzophenone, uses and  
miscellaneous 120-12-7, Anthracene, uses and miscellaneous 198-55-0,  
Perylene 673-48-3 924-83-4 1675-54-3 2386-87-0,  
3,4-Epoxy cyclohexylmethyl 3',4'-epoxycyclohexanecarboxylate 2425-79-8  
16096-31-4 25215-61-6 25215-62-7, Monobutyl maleate-styrene copolymer  
25585-77-7, Acrylic acid-ethyl acrylate-styrene copolymer 59487-35-3,  
Ditolylidonium hexafluorophosphate 75009-76-6 118168-67-5  
125935-90-2, M 545 126139-90-0  
RL: USES (Uses)  
(photopolymerizable compns. containing, for photoresists  
and printing plate fabrication)

L24 ANSWER 30 OF 45 CAPLUS COPYRIGHT 2005 ACS on STN

AN 1990:66738 CAPLUS

DN 112:66738

ED Entered STN: 17 Feb 1990

TI Photopolymerizable composition containing diol compounds

IN Strehmel, Bernd; Timpe, Hans Joachim; Rautschek, Holger;  
Mueller, Christine; Heller, Volkmar; Heinzig, Steffen; Schuelert, Helmut;  
Gabert, Kurt

PA Institut fuer Grafische Technik Forschungsinstitut der Polygrafischen  
Industrie, Ger. Dem. Rep.

SO Ger. (East), 6 pp.

CODEN: GEXXA8

DT Patent

LA German

IC ICM G03C001-68

ICS G03F007-10

CC 74-4 (Radiation Chemistry, Photochemistry, and Photographic and Other  
Reprographic Processes)

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	DD 268536	A1	19890531	DD 1988-312241	19880115
PRAI	DD 1988-312241		19880115		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
DD 268536	ICM	G03C001-68
	ICS	G03F007-10

AB The title composition contains  $\geq 1$  alkali-soluble binder, a  
photoinitiator or photoinitiator system, a stabilizer,  
and  $\geq 1$  of the following alkali-soluble monomers: (1)  
HO<sub>2</sub>CCH:CHCO<sub>2</sub>(CH<sub>2</sub>)<sub>m</sub>CH:CH(CH<sub>2</sub>)<sub>n</sub>O<sub>2</sub>CCH:CHCO<sub>2</sub>H; (2)  
HO<sub>2</sub>CCH:CHCO<sub>2</sub>(CH<sub>2</sub>)<sub>m</sub>CH:CH(CH<sub>2</sub>)<sub>n</sub>O<sub>2</sub>CCH:CHCO<sub>2</sub>H; (3)  
HO<sub>2</sub>CCH:CHCO<sub>2</sub>(CH<sub>2</sub>)<sub>p</sub>O<sub>2</sub>CCH:CHCO<sub>2</sub>H; (4) HO<sub>2</sub>CCH:CHCO<sub>2</sub>(CH<sub>2</sub>)<sub>p</sub>O<sub>2</sub>CCH:CHCO<sub>2</sub>H; (5)

STN search for 10765,797

HO<sub>2</sub>CCH:CHCO<sub>2</sub>(CH<sub>2</sub>CH<sub>2</sub>O)qOCCH:CHCO<sub>2</sub>H; and (6) HO<sub>2</sub>CCH:CHCO<sub>2</sub>(CH<sub>2</sub>CH<sub>2</sub>O)qOCCH:CHCO<sub>2</sub>H [m, n = 1-6; p = 3-6; q = 2-4]. The composition can be used for relief **printing** plate production or information recording.

ST **photopolymerizable** compn diol acid; **printing** plate relief **photosensitive** compn

IT **Photoimaging** compositions and processes (containing diol compds.)

IT **Printing** plates (relief, **photopolymerizable** compns. containing diol compds. for preparation of)

IT 55133-52-3 62538-61-8 85647-79-6 99031-89-7 119713-41-6 124816-31-5

RL: USES (Uses)  
(**photopolymerizable** composition containing)

L24 ANSWER 31 OF 45 CAPLUS COPYRIGHT 2005 ACS on STN

AN 1990:45695 CAPLUS

DN 112:45695

ED Entered STN: 04 Feb 1990

TI **Photopolymerizable** material

IN Baumann, Harald; Israle, Gunter; Kraus, Norbert; Kronfeld, Klaus Peter; Mueller, Uwe; Raetzsch, Manfred; **Timpe, Hans Joachim**

PA VEB Filmfabrik Wolfen, Fotochemisches Kombinat, Ger. Dem. Rep.

SO Ger. (East), 5 pp.  
CODEN: GEXXA8

DT Patent

LA German

IC ICM G03C001-68

CC 74-4 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	DD 268313	A1	19890524	DD 1987-311439	19871228
PRAI	DD 1987-311439		19871228		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
DD 268313	ICM	G03C001-68

OS MARPAT 112:45695

AB A **photopolymerizable** material that is suitable for the production of printed circuits and relief **printing** plates uses a water-soluble **photoinitiator** system containing an onium compound and a water-soluble aromatic ketone with readily oxidizable groups. The **photopolymerizable** material may contain N,N-dimethylaminopropylacrylamide, mon-Bu maleate-styrene copolymer, diphenyliodonium hydrogen sulfate, Michler's ketone disulfonic acid, NaOH, and H<sub>2</sub>O.

ST **photopolymerizable** compn relief **printing** plate

IT Lithographic plates  
(**photopolymerizable** compns. for fabrication of)

IT **Photoimaging** compositions and processes  
(**photopolymerizable**, for relief image formation)

IT 79-06-1, Acrylamide, uses and miscellaneous 110-26-9, Methylenebisacrylamide 673-41-6 2426-54-2, N,N-Diethylaminoethyl acrylate 2867-47-2, N,N-Dimethylaminoethyl methacrylate 3845-76-9, N,N-Dimethylaminopropylacrylamide 9003-39-8, Poly(N-vinylpyrrolidone) 20602-77-1 25085-35-2, Acrylic acid-ethyl-acrylate copolymer 25215-62-7, Monobutylmaleate-styrene copolymer 49723-69-5, Diphenyliodonium hydrogen sulfate 124417-44-3

STN search for 10765,797

RL: USES (Uses)

(photopolymerizable photoimaging compns. containing,  
for relief image formation)

L24 ANSWER 32 OF 45 CAPLUS COPYRIGHT 2005 ACS on STN  
AN 1989:564207 CAPLUS  
DN 111:164207  
ED Entered STN: 28 Oct 1989  
TI Photopolymerizable materials for relief image formation  
IN Kraus, Norbert; Mueller, Uwe; Raetzsch, Manfred; Kronfeld, Klaus P.;  
Timpe, Hans J.; Papendick, Birgit  
PA VEB Filmfabrik Wolfen, Fotochemisches Kombinat, Ger. Dem. Rep.  
SO Ger. (East), 6 pp.  
CODEN: GEXXA8  
DT Patent  
LA German  
IC ICM G03C001-68  
CC 74-4 (Radiation Chemistry, Photochemistry, and Photographic and Other  
Reprographic Processes)

FAN.CNT 1

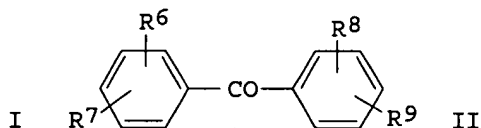
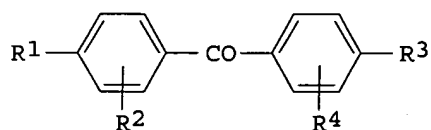
	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	DD 261858	A1	19881109	DD 1985-277252	19850611
PRAI	DD 1985-277252		19850611		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
DD 261858	ICM	G03C001-68

OS MARPAT 111:164207

GI



AB Photopolymerizable materials for relief image formation as in the production of printed circuits and relief printing plates consist of an underlayer, a light-sensitive layer containing a monomer and a photoinitiator system consisting of a betaine structure-forming compound of the formula I (R1, R3 = N(R5)2; R2 = H, CO2M1, SO3M1; R4 = CO2M1, SO2M1; R5 = H, C1-4 alkyl; and M1 = H, Li, Na, K), a benzophenone derivative of the formula II (R6, R8 = H, alkyl; R7 = H, CO2M2, SO2M2; R9 = CO2M2, SO2M2; M2 = H, Li, Na, K), and an anion compound, and auxiliary layers. An anodized Al plate or a hydrophilized polyester film was coated with a compound of the formula I (R1, R3 = NMe2; R2, R3 = m-SO3H), II (R6, R8 = H; R7, R9 = m-SO3Na), diphenyliodonium hydrogen sulfate, acrylamide, N,N'-methylenebisacrylamide, N,N-dimethylaminopropylacrylamide, gelatin, poly(vinyl alc.), and water, dried, imaged with a high-pressure Hg lamp, and developed with warm water to give a polymer relief image.

ST photopolymerizable compn relief image formation; betaine photoinitiator photopolymer compn; onium compd photoinitiator photopolymer compn; benzophenone deriv photoinitiator photopolymer compn

IT Photoimaging compositions and processes  
(photopolymer, containing photoinitiator system from

STN search for 10765,797

betaine structure-forming compound and benzophenone derivative for relief image formation)  
IT Gelatins, uses and miscellaneous  
RL: USES (Uses)  
(photopolymerizable composition containing three-component photoinitiator system and, for relief image formation)  
IT Resists  
(photo-, containing photoinitiator system from betaine structure-forming compound and benzophenone derivative)  
IT Electric circuits  
(printed, photopolymerizable compns. containing photoinitiator system from betaine structure-forming compound and benzophenone derivative for fabrication of)  
IT Printing plates  
(relief, photopolymerizable compns. containing photoinitiator system from betaine structure-forming compound and benzophenone derivative for fabrication of)  
IT 79-06-1, Acrylamide, uses and miscellaneous 110-26-9,  
N,N'-Methylenebisacrylamide 930-37-0, Methyl glycidyl ether 3845-76-9  
9002-89-5, Poly(vinyl alcohol) 9003-39-8, Poly(vinylpyrrolidone)  
RL: USES (Uses)  
(photopolymerizable composition containing three-component photoinitiator system and, for relief image formation)  
IT 673-41-6, p-Chlorobenzenediazonium tetrafluoroborate 4248-56-0  
7091-28-3 19917-05-6 49723-69-5, Diphenyliodonium hydrogen sulfate  
118144-73-3 119056-51-8  
RL: USES (Uses)  
(photopolymerizable composition with photoinitiator system containing, for relief image formation)

L24 ANSWER 33 OF 45 CAPLUS COPYRIGHT 2005 ACS on STN

AN 1989:415341 CAPLUS

DN 111:15341

ED Entered STN: 08 Jul 1989

TI High-sensitivity **photoimaging** composition containing betaine and onium compound

IN Kraus, Norbert; Muller, Uwe; Ratzsch, Manfred; Kronfeld, Klaus Peter; **Timpe, Hans Joachim**; Papendieck, Birgit

PA VEB Filmfabrik Wolfen, Ger. Dem. Rep.

SO Fr. Demande, 12 pp.

CODEN: FRXXBL

DT Patent

LA French

IC ICM G03C001-68

ICS G03F007-00

CC 74-4 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

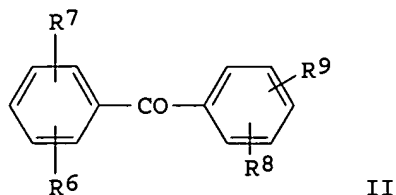
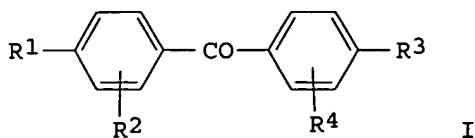
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	FR 2609185	A1	19880701	FR 1986-18175	19861224
	CH 671294	A	19890815	CH 1986-4826	19861203
PRAI	FR 1986-18175		19861224		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
FR 2609185	ICM	G03C001-68
	ICS	G03F007-00

GI



- AB A high sensitivity **photoimaging** composition contains a binder, monomers, and a H<sub>2</sub>O-soluble system containing a betaine of the structure I [R<sub>1</sub>, R<sub>3</sub> = NR<sub>5</sub>; R<sub>2</sub> = H, CO<sub>2</sub>X, SO<sub>3</sub>X; R<sub>5</sub> = H, alkyl; X = H, Li, Na, K; R<sub>4</sub> = CO<sub>2</sub>X, SO<sub>3</sub>X], a compound of the formula II [R<sub>6</sub>, R<sub>8</sub> = H or alkyl at the p- or o-position; R<sub>7</sub> = R<sub>2</sub> at the meta or para position; R<sub>9</sub> = R<sub>4</sub> at the meta or para position], and an onium compound. The composition can be used for forming printed circuits, **printing** plates, or the surface layer of images. Thus, a composition containing I [R<sub>1</sub>, R<sub>3</sub> = p-methylamino; R<sub>2</sub>, R<sub>4</sub> = m-SO<sub>3</sub>H], II [R<sub>6</sub>, R<sub>8</sub> = H; R<sub>7</sub>, R<sub>9</sub> = m-SO<sub>3</sub>Na], diphenyliodonium sulfate, acrylamide, N,N'-methylenebisacrylamide, N,N'-dimethylpropylacrylamide, gelatin, PVA, and H<sub>2</sub>O, was used to form polymer images, and then dipped in a dye bath to obtain colored images.
- ST **photoimaging** compn water sol; betaine compd water sol  
**photoimaging**; onium compd water sol **photoimaging**;  
**printing** plate water sol compn; elec circuit water sol compn
- IT **Photoimaging** compositions and processes  
 (containing water-soluble system containing betaine and onium compound, high-sensitivity)
- IT Onium compounds  
 RL: USES (Uses)  
 (**photoimaging** composition containing)
- IT **Printing** plates  
 (**photosensitive** composition containing betaine and onium compound for production of)
- IT Electric circuits  
 (printed, **photosensitive** composition containing betaine and onium compound for production of)
- IT 79-06-1, Acrylamide, uses and miscellaneous 110-26-9,  
 N,N'-Methylenebisacrylamide 673-41-6, p-Chlorobenzenediazonium  
 tetrafluoroborate 930-37-0, Methyl glycidyl ether 3845-76-9,  
 N,N-Dimethylaminopropylacrylamide 9003-39-8, Polyvinylpyrrolidone  
 10595-45-6 19917-05-6 115051-15-5 118144-73-3 121039-18-7  
 RL: USES (Uses)  
 (**photoimaging** composition containing, high-sensitivity)
- L24 ANSWER 34 OF 45 CAPLUS COPYRIGHT 2005 ACS on STN  
 AN 1989:182965 CAPLUS  
 DN 110:182965  
 ED Entered STN: 12 May 1989  
 TI **Photopolymerizable** material for preparing printed circuits and  
**printing** plates  
 IN Kraus, Norbert; Haubold, Wolfgang; Israel, Guenter; Mueller, Uwe; Taplick,  
 Thomas; **Timpe, Hans Joachim**; Raetzsch, Manfred; Knopel, Reingard

STN search for 10765,797

PA VEB Filmfabrik Wolfen, Fotochemisches Kombinat, Ger. Dem. Rep.  
SO Ger. (East), 8 pp.  
CODEN: GEXXA8  
DT Patent  
LA German  
IC ICM G03C001-68  
CC 74-4 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

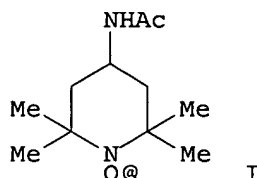
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	DD 256770	A1	19880518	DD 1985-280943	19850924
PRAI	DD 1985-280943		19850924		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
DD 256770	ICM	G03C001-68

GI



- AB **Photopolymerizable** materials for use in preparing printed circuits and relief images for **printing** plates or for preparing imagewise-hardened coatings are composed of a support,  $\geq 1$  **photosensitive** layer containing a monomer, binder, inhibitor, a **photoinitiator** from a compound with an N-oxyl structure, and further additives, and optional further auxiliary layers. The materials give improved detail reproduction and have an improved storage stability. Thus, a PET foil was coated with a composition containing a mono-Bu maleate-styrene copolymer, pentaerythritol tetraacrylate, Michler's ketone, benzophenone, diphenyliodonium chloride, I, BuOH, and MeOH, dried, imagewise exposed, and developed with aqueous Na<sub>2</sub>CO<sub>3</sub> to produce a relief image that could be colored with Solamine Light Turkish Blue.
- ST oxyl compd **photoinitiator photosensitive** compn;  
**printing** plate **photosensitive** oxyl compd; relief image **photosensitive** oxyl compd; printed circuit **photosensitive** oxyl compd; circuit circuit **photosensitive** oxyl compd
- IT Lithographic plates  
(**photosensitive** compns. containing N-oxyl compound **photoinitiator** for fabrication of)
- IT Resists  
(**photo-**, containing N-oxyl compound **photoinitiator**)
- IT **Photoimaging** compositions and processes  
(**photopolymerizable**, containing N-oxyl compound **photoinitiator** for relief images)
- IT 150-76-5, Hydroquinone monomethyl ether 3225-26-1 14691-89-5  
118086-68-3  
RL: USES (Uses)  
(**photosensitive** compns. containing **photoinitiator** from, for relief image formation)
- IT 79-06-1, 2-Propenamide, uses and miscellaneous 90-94-8, Michler's ketone

STN search for 10765,797

110-26-9, Methylene bisacrylamide 119-61-9, Benzophenone, uses and  
miscellaneous 959-52-4 1483-72-3, Diphenyliodonium chloride  
3845-76-9, N,N-Dimethylaminopropylacrylamide 4986-89-4, Pentaerythritol  
tetraacrylate 5459-38-1 9002-89-5, Poly(vinyl alcohol) 9003-39-8,  
Poly(vinylpyrrolidone) 24305-03-1 49723-69-5, Diphenyliodonium  
hydrogen sulfate 54991-66-1 97586-32-8 118144-73-3 120300-12-1  
RL: USES (Uses)

(**photosensitive** compns. containing N-oxyl compound  
**photoinitiator** and, for relief image formation)

L24 ANSWER 35 OF 45 CAPLUS COPYRIGHT 2005 ACS on STN

AN 1989:85505 CAPLUS

DN 110:85505

ED Entered STN: 04 Mar 1989

TI **Photoimaging** composition containing highly sensitive  
three-component **photoinitiator** system

IN Kraus, Norbert; Mueller, Uwe; Raetzsch, Manfred; Kronfeld, Klaus Peter;  
**Timpe, Hans Joachim**; Papendieck, Birgit

PA VEB Filmfabrik Wolfen, Ger. Dem. Rep.

SO Ger. Offen., 6 pp.

CODEN: GWXXBX

DT Patent

LA German

IC ICM G03C001-68

ICS G03F007-10

ICA C07C101-78; C07C143-56

CC 74-4 (Radiation Chemistry, Photochemistry, and Photographic and Other  
Reprographic Processes)

FAN.CNT 1

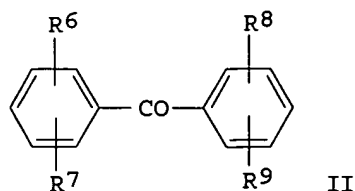
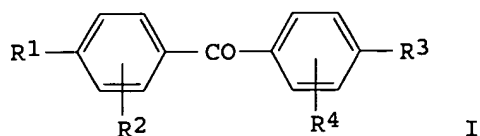
	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	DE 3641053	A1	19880616	DE 1986-3641053	19861201
	GB 2198735	A1	19880622	GB 1986-30356	19861219
	GB 2198735	B2	19900404		
PRAI	DE 1986-3641053		19861201		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
DE 3641053	ICM	G03C001-68
	ICS	G03F007-10
	ICA	C07C101-78; C07C143-56

OS MARPAT 110:85505

GI



- AB A **photopolymerizable** composition contains at least a **photosensitive** layer composed of monomers and a H<sub>2</sub>O-soluble 3-component **photoinitiator** system containing a benzophenone derivative of the structure I [R<sub>1</sub>, R<sub>3</sub> = NR<sub>52</sub>; R<sub>2</sub> = H, CO<sub>2</sub>X, SO<sub>3</sub>X; R<sub>4</sub> = CO<sub>2</sub>X, SO<sub>3</sub>X; R<sub>5</sub> = H, C<sub>1-4</sub> alkyl; X = H, Li, Na, K], a benzophenone derivative of the structure II [R<sub>6</sub>, R<sub>8</sub> = H, alkyl in the ortho or para position; R<sub>7</sub> = H, CO<sub>2</sub>X, SO<sub>3</sub>X, in the meta or para position; R<sub>9</sub> = CO<sub>2</sub>X, SO<sub>3</sub>X, in the meta or para position; X = H, Li, K, Na], and an anion compound. The **photoinitiator** system has very high sensitivity and the composition can be developed with H<sub>2</sub>O or an aqueous solution. Thus, a composition containing I [R<sub>1</sub>, R<sub>3</sub> = p-Me<sub>2</sub>N; R<sub>2</sub>, R<sub>4</sub> = m-SO<sub>3</sub>H], II [R<sub>6</sub>, R<sub>8</sub> = H; R<sub>7</sub>, R<sub>9</sub> = m-SO<sub>3</sub>Na], diphenyliodonium hydrogen sulfate, acrylamide, N,N'-methylenebisacrylamide, N,N'-dimethylpropylacrylamide, gelatin, PVA, and H<sub>2</sub>O was used to form a relief image by using a high-pressure Hg vapor lamp.
- ST **photoimaging** compn **photoinitiator** system;  
**printing** plate **photopolymer** compn **photoinitiator**  
; anion compd **photoinitiator** **photopolymer** compn;  
benzophenone deriv **photoinitiator** **photopolymer** compn
- IT **Photoimaging** compositions and processes  
(photoinitiator system for, 3-component, containing benzophenone derivs.)
- IT **Printing** plates  
(photopolymerizable composition for fabrication of, three-component **photoinitiator** system containing benzophenone derivs. for)
- IT Polymerization catalysts  
(photochem., three-component, containing benzophenone derivs.)
- IT 673-41-6, p-Chlorobenzenediazonium tetrafluoroborate 4248-56-0  
19917-05-6 49723-69-5 118144-73-3 119056-51-8  
RL: USES (Uses)  
(photoinitiator system containing, for **photopolymer** **photoimaging** materials)
- IT 79-06-1, 2-Propenamide, uses and miscellaneous 110-26-9,  
N,N'-Methylenebisacrylamide 3845-76-9 10595-45-6  
RL: USES (Uses)  
(photopolymer **photoimaging** material containing, 3-component **photoinitiator** system for)

L24 ANSWER 36 OF 45 CAPLUS COPYRIGHT 2005 ACS on STN  
AN 1989:15948 CAPLUS  
DN 110:15948  
ED Entered STN: 06 Jan 1989



STN search for 10765,797

TI **Photopolymerizable** composition containing maleic acid copolymer  
and amine compound  
IN Kraus, Norbert; Baumann, Harald; Mueller, Uwe; Pietsch, Herward; Raetsch,  
Manfred; **Timpe, Hans Joachim**  
PA VEB Filmfabrik Wolfen, Ger. Dem. Rep.  
SO Ger. (East), 5 pp.  
CODEN: GEXXA8  
DT Patent  
LA German  
IC ICM G03C001-68  
CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other  
Reprographic Processes)  
Section cross-reference(s): 76

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	DD 254798	A1	19880309	DD 1984-266888	19840903
PRAI	DD 1984-266888		19840903		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
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DD 254798	ICM	G03C001-68
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AB A **photopolymerizable** composition for preparing relief **printing**  
plates and printed circuits comprises: (1) a binder from a mixture of  
≥2 modified maleic anhydride copolymers with multiple salt forming  
groups, in which ≥1 component is a modified alternating maleic  
anhydride copolymer with most probable mol. weight 20,000-500,000 (20-95  
mol%) and ≥1 component from a modified nonalternating maleic  
anhydride copolymer with most probable mol. weight 10,000-300,000 (60-95  
mol%) and (2) ≥1 ethylenically unsatd. addition polymerizable monomer  
with ≥1 primary, sec, or tert amino group. The composition is  
devellopable with an aqueous medium. The composition is fog-free, produces  
images  
with high edge definition, and has improved adhesion to the support. The  
composition may contain styrene-maleic acid Bu half ester copolymer, Bu amine,  
Me methacrylate-maleic anhydride copolymer, N,N-  
dimethylaminopropylacrylamide, catalysts, and solvents.  
ST **printing** plate **photoimaging** compn; maleic anhydride  
copolymer **photoimaging** compn; elec circuit amine  
**photoimaging** compn  
IT **Photoimaging** compositions and processes  
(containing maleic anhydride copolymer and amine)  
IT Electric circuits  
(printed, **photopolymerizable** compns. containing maleic anhydride  
copolymer and amine for)  
IT **Printing** plates  
(relief, **photopolymerizable** compns. containing maleic anhydride  
copolymer and amine for)  
IT 109-73-9, n-Butyl amine, uses and miscellaneous 110-26-9,  
Methylenebisacrylamide 3845-76-9, N,N-Dimethylaminopropylacrylamide  
21714-01-2 25119-65-7, Maleic anhydride-methyl methacrylate copolymer  
25215-62-7 71878-02-9 117805-76-2  
RL: USES (Uses)  
(**photopolymerizable** composition containing)

L24 ANSWER 37 OF 45 CAPLUS COPYRIGHT 2005 ACS on STN  
AN 1988:560310 CAPLUS  
DN 109:160310  
ED Entered STN: 28 Oct 1988  
TI **Photopolymers** for **printing** plates

STN search for 10765,797

AU **Timpe, Hans Joachim**; Baumann, Harald; Rautschek, Holger;  
Rautschek, Monika; Mueller, Christine  
CS Sekt. Chem., Tech. Hochsch. "Carl Schorlemmer", Merseburg, DDR-4200, Ger.  
Dem. Rep.  
SO Chemische Technik (Leipzig, Germany) (1988), 40(8), 327-33  
CODEN: CHTEAA; ISSN: 0045-6519  
DT Journal; General Review  
LA German  
CC 74-0 (Radiation Chemistry, Photochemistry, and Photographic and Other  
Reprographic Processes)  
AB A review with 62 refs. dealing with the production of **printing**  
plates in the polygraphic industry. The **photopolymer** systems  
are classified as diazo systems, azide systems, **photocycloadn.**  
systems, systems based on **photoinduced** polymerization, and  
**photopolymer** systems for waterless offset **printing**. The  
**photochem.** of these systems and the advantages in the polygraphic  
application are discussed.  
ST review **photopolymer printing** plate prodn  
IT **Printing** plates  
(production of, **photopolymers** in)

L24 ANSWER 38 OF 45 CAPLUS COPYRIGHT 2005 ACS on STN  
AN 1988:177235 CAPLUS  
DN 108:177235  
ED Entered STN: 13 May 1988  
TI Initiator system for **photopolymerizable** materials  
IN Heller, Volkmar; Heintzig, Steffen; Mueller, Christine; **Timpe, Hans**  
**Joachim**; Papendieck, Birgit; Mueller, Uwe  
PA Institut fuer Grafische Technik Forschungsinstitut der Polygrafischen  
Industrie, Ger. Dem. Rep.  
SO Ger. Offen., 8 pp.  
CODEN: GWXXBX  
DT Patent  
LA German  
IC ICM G03C001-68  
ICS G03F007-10; C08F004-40; C08F002-48  
ICA G11B007-24  
CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other  
Reprographic Processes)

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	DE 3701333	A1	19870813	DE 1987-3701333	19870119
	HU 42642	A2	19870728	HU 1987-477	19870206
PRAI	DD 1986-286882	A	19860207		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
DE 3701333	ICM	G03C001-68
	ICS	G03F007-10; C08F004-40; C08F002-48
	ICA	G11B007-24

AB **Photopolymerizable** materials for the preparation of information  
recording materials and for the preparation of relief images for  
**printing** plates and printed circuits use an initiator system  
composed of a combination of a carbonyl compound or an anthraquinone derivative  
as a H acceptor or an electron acceptor and a heterocyclic compound as a H  
donor or an electron donor along with an onium compound as a coinitiator.  
Thus, a mech. roughened Al plate was coated with an acetone solution containing  
pentaerythritol tetraacrylate, methacrylic acid-styrene oligomer, acrylic  
acid-Me acrylate-styrene copolymer, diphenyliodonium chloride,

benzophenone, and 2,3-benzoylenequinoxaline, exposed through a mask in direct contact with the layer, and developed with 1% aq Na<sub>2</sub>CO<sub>3</sub> at 20°. The exposure time required to obtain a true reproduction was 10 s.

- ST **photopolymer photoimaging compn photoinitiator**  
system; carbonyl compd **photoinitiator photopolymer**  
**photoimaging**; onium compd **photoinitiator**  
**photopolymer photoimaging**; heterocycle  
**photoinitiator photopolymer photoimaging**
- IT **Photoimaging compositions and processes**  
(**photoinitiator** system containing carbonyl compound and  
heterocyclic compound and onium compound for)
- IT Diazonium compounds  
Onium compounds  
Phosphonium compounds  
Sulfonium compounds  
RL: USES (Uses)  
(**photoinitiator** systems containing carbonyl compds. and  
heterocyclic compds. and, for **photopolymer**  
**photoimaging** compns.)
- IT Heterocyclic compounds  
RL: USES (Uses)  
(**photoinitiator** systems containing carbonyl compds. and onium  
compds. and, for **photopolymer photoimaging** compns.)
- IT Carbonyl compounds, uses and miscellaneous  
RL: USES (Uses)  
(**photoinitiator** systems containing heterocyclic compound and onium  
compound and, for **photopolymer photoimaging** compns.)
- IT Lithographic plates  
(**photopolymerizable** composition containing **photoinitiator**  
system from carbonyl compound and heterocyclic compound and onium compound  
for fabrication of)
- IT Onium compounds  
RL: USES (Uses)  
(iodonium, **photoinitiator** systems containing carbonyl compds. and  
heterocyclic compds. and, for **photopolymer**  
**photoimaging** compns.)
- IT Resists  
(**photo-**, **photoinitiator** system containing carbonyl  
compound and heterocyclic compound and onium compound for)
- IT Polymerization catalysts  
(**photochem.**, carbonyl compound-heterocyclic compound-onium compound  
systems as)
- IT **Printing plates**  
(relief, **photopolymerizable** compns. containing  
**photoinitiator** system from carbonyl compound and heterocyclic  
compound and onium compound for fabrication of)
- IT 9010-92-8  
RL: USES (Uses)  
(oligomeric, **photopolymer photoimaging** compns.  
containing carbonyl compound-heterocyclic compound-onium compound  
**photoinitiator** system and, for **printing plate**  
fabrication)
- IT 4986-89-4, Pentaerythritol tetracrylate 9003-39-8, Poly(vinyl  
pyrrolidone) 9038-42-0 25586-23-6, Acrylic acid-methyl  
acrylate-styrene copolymer  
RL: USES (Uses)  
(**photopolymer photoimaging** composition containing carbonyl  
compound-heterocyclic compound-onium compound **photoinitiator** system  
and, for **printing plate** fabrication)

STN search for 10765,797

IT 119-61-9, Benzophenone, uses and miscellaneous 1483-72-3,  
Diphenyliodonium chloride 5291-44-1 6935-19-9 6954-91-2  
RL: USES (Uses)  
(**photopolymer photoimaging** composition with  
**photoinitiator** containing, for **printing** plate  
fabrication)

L24 ANSWER 39 OF 45 CAPLUS COPYRIGHT 2005 ACS on STN

AN 1988:159040 CAPLUS

DN 108:159040

ED Entered STN: 30 Apr 1988

TI Negative-working **photopolymer** composition for relief image  
production

IN Roth, Christoph; Weigt, Wilfried; Anton, Elisabeth; Mueller, Christine;  
Heller, Volkmar; **Timpe, Hans Joachim**; Heinzig, Steffen

PA VEB Filmfabrik Wolfen, Fotochemisches Kombinat, Ger. Dem. Rep.

SO Ger. (East), 5 pp.

CODEN: GEXXA8

DT Patent

LA German

IC ICM G03C001-68

CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other  
Reprographic Processes)

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	DD 243573	A1	19870304	DD 1985-284535	19851217
PRAI	DD 1985-284535		19851217		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
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DD 243573	ICM	G03C001-68
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AB Neg.-working, alkali solution-developable **photopolymerizable**  
comps. for the production of relief images, **printing** plates, and  
printed circuits are composed of a radical-forming **photoinitiator**  
,  $\geq 1$  ethylenically unsatd. compound, and a binder mixture from an  
alkali-soluble polymer and an oligomer of the formula  
 $\text{HO}_2\text{CCH:CHCO}_2\text{CHR}_1\text{CH}_2\text{O}(\text{CMePhCH}_2)\text{nOCH}_2\text{CHR}_{10}\text{CCH:CHCO}_2\text{H}$  ( $\text{R}_1 = \text{H, Me, Et, Ph; n}$   
 $= 3-10$ ) (I). The comps. have improved phys.-mech. characteristics in the  
moist state. Thus, a PET support was coated with a composition containing I

( $\text{R}_1 =$   
H;  $n = 5$ ), maleic acid-styrene copolymer mono-Bu ester, trimethylolpropane  
triacylate, benzoin iso-Pr ether, ethylene glycol, and  $\text{Me}_2\text{CO}$ , dried,  
coated with a poly(vinyl alc.) protective layer, dried, imagewise exposed,  
and swollen with 0.1N NaOH to show excellent wet strength.

ST methylstyrene oligomer relief **photoimaging** compn;  
**photoresist** neg unsatd methylstyrene oligomer; **printing**  
plate relief binder

IT **Printing** plates

(neg.-working **photosensitive** comps. containing alkali-soluble  
polymer binder and unsatd. oligomers for preparation of)

IT **Photoimaging** compositions and processes

(**photopolymer**, neg.-working, containing alkali-soluble polymer  
binder and unsatd. oligomer for relief images)

IT Resists

(**photo-**, neg.-working, containing alkali-soluble polymer binder and  
unsatd. oligomers)

IT 25014-31-7D, Poly( $\alpha$ -methylstyrene), carboxylated

RL: USES (Uses)

(oligomeric, neg.-working relief **photoimaging** comps. containing

STN search for 10765,797

alkali-soluble polymer binder and, for **photoresists** and **printing plates**)

IT 90-94-8, Michler's ketone 97-90-5 119-61-9, uses and miscellaneous  
1070-70-8 2358-84-1, Diethylene glycol dimethacrylate 4986-89-4  
6652-28-4 15625-89-5 22499-12-3, Benzoin isobutyl ether  
RL: USES (Uses)  
(relief **photoimaging** compns. containing alkali-soluble polymer  
binder and unsatd. oligomer and, neg.-working, for **photoresists**  
and **printing plates**)

IT 113817-88-2 113817-89-3  
RL: USES (Uses)  
(relief **photoimaging** compns. containing alkali-soluble polymer  
binder and, neg.-working, for **photoresist** and  
**printing plates**)

IT 25135-39-1, Acrylic acid-ethyl acrylate-methyl methacrylate copolymer  
25215-62-7, Monobutylmaleate-styrene copolymer  
RL: USES (Uses)  
(relief **photoimaging** compns. containing unsatd. oligomer and,  
neg.-working, for **photoresists** and **printing plates**)

L24 ANSWER 40 OF 45 CAPLUS COPYRIGHT 2005 ACS on STN

AN 1988:29433 CAPLUS

DN 108:29433

ED Entered STN: 23 Jan 1988

TI Increasing **photosensitivity** of **photopolymerizable**  
materials

IN Baumann, Harald; Timpe, Hans Joachim; Strehmel, Bernd; Weigt,  
Wilfried; Boettcher, Horst

PA VEB Filmfabrik Wolfen, Ger. Dem. Rep.

SO Ger. (East), 4 pp.

CODEN: GEXXA8

DT Patent

LA German

IC ICM G03C001-68

CC 74-4 (Radiation Chemistry, Photochemistry, and Photographic and Other  
Reprographic Processes)

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	DD 242877	A1	19870211	DD 1982-246147	19821217
PRAI	DD 1982-246147		19821217		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
DD 242877	ICM	G03C001-68

AB The **photosensitivity** of spectrally sensitized  
**photopolymerizable** materials containing a metal complex compound as the  
initiator involves treating the materials at >50° after the  
exposure and subsequently developing by a known method. The materials are  
useful for information recording production of printed circuits and  
**printing plates**. A polyester film was coated with a composition containing  
diphenyliodonium chloride (C18H37Me3N)3[Fe(C2O4)3], an epoxide acrylate  
from diandiglycidyl ether and acrylic acid, and a Me2CO dispersion containing  
C black and an acrylic acid-Et acrylate-styrene copolymer, dried, exposed  
for 20 s, heated 5 min at 90°, and treated at room temperature in an aqueous  
solution containing MeOH 30% and NaOH 2% to give a black image. An unheated  
control required a 60 s exposure time to produce the same image.

ST **photopolymer photoimaging** compn heating sensitivity;  
**photoinitiator photopolymer photoimaging** compn  
sensitivity; metal complex **photoinitiator photoimaging**

STN search for 10765,797

compn  
IT **Photoimaging** compositions and processes  
(**photopolymer**, containing metal complex **photoinitiator**,  
heating of, for increased sensitivity)  
IT **Printing** plates  
(**photopolymerizable** compns. containing metal complex  
**photoinitiator** for fabrication of, heating of, for improved  
**photosensitivity**)  
IT **Resists**  
(**photo-**, **photopolymerizable** compns. containing metal  
complex **photoinitiator** as, heating of, for improved  
sensitivity)  
IT 4986-89-4 112078-51-0  
RL: USES (Uses)  
(**photopolymerizable photoimaging** composition containing  
metal complex **photoinitiator** and, heating of, for improved  
sensitivity)  
IT 437-13-8, Triphenylsulfonium tetrafluoroborate 1483-72-3 5667-47-0  
29572-61-0 97202-43-2 97202-44-3 97202-45-4  
RL: USES (Uses)  
(**photopolymerizable photoimaging** composition containing,  
heating of, for improved sensitivity)  
  
L24 ANSWER 41 OF 45 CAPLUS COPYRIGHT 2005 ACS on STN  
AN 1988:7143 CAPLUS  
DN 108:7143  
ED Entered STN: 09 Jan 1988  
TI **Photopolymers**-Principles and Applications (**Photopolymere**  
-Prinzipien und Anwendungen)  
AU **Timpe, H. J.**; Baumann, H.  
CS Ger. Dem. Rep.  
SO (1987) Publisher: (VEB Deutscher Verlag fuer Grundstoffindustrie, Leipzig,  
Ger. Dem. Rep.), 336 pp.  
DT Book  
LA German  
CC 38-1 (Plastics Fabrication and Uses)  
Section cross-reference(s): 74  
AB Unavailable  
ST book **photopolymer**  
IT **Photography**  
**Printing**, nonimpact  
(principles and applications of)  
IT **Resists**  
**Polymers**  
RL: PROC (Process)  
(**photo-**, principles and applications of)  
  
L24 ANSWER 42 OF 45 CAPLUS COPYRIGHT 2005 ACS on STN  
AN 1986:234300 CAPLUS  
DN 104:234300  
ED Entered STN: 27 Jun 1986  
TI **Photopolymerizable** material  
IN Baumann, Harald; Kraus, Norbert; Mueller, Uwe; Papendick, Birgit;  
Raetzsch, Manfred; **Timpe, Hans Joachim**  
PA Technische Hochschule "Carl Schorlemmer" Leuna-Merseburg, Ger. Dem. Rep.  
SO Ger. (East), 14 pp.  
CODEN: GEXXA8  
DT Patent  
LA German  
IC ICM G03C001-68

STN search for 10765,797

CC 74-4 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	DD 225800	A1	19850807	DD 1984-262604	19840502
PRAI	DD 1984-262604		19840502		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
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DD 225800	ICM	G03C001-68
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AB A **photopolymerizable** material for the preparation of relief images for **printing** plates, printed circuits, information recording materials, or **photohardenable** surface coatings uses as the **photoinitiator** a **photoredox** system in combination with a coinitiator, which induces not only radical polymerization, but also cationic polymerization. The use of the coinitiator increases the effectiveness of the system around 5-fold. A H-donor-H-acceptor combination is used in the **photoredox** system, and an onium compound is used as the **photoinitiator**. Thus, a mixture containing Me methacrylate 50, poly(vinylpyrrolidone) 60, Michler's ketone 2, benzophenone 11, diphenyliodonium chloride 10, and MeOH 600 parts was coated on an unsubbed PET film at 10  $\mu$ m (dry), exposed for 10 s at 30 cm to a high-pressure Hg lamp, and developed with water to give a good relief image.

ST **photopolymer photoimaging** compn relief image;  
**photoredox** system **photoinitiator** relief imaging; onium  
compd **photoinitiator** relief imaging

IT Onium compounds

RL: USES (Uses)

(**photopolymer photoimaging** composition containing  
**photoinitiator** from **photoredox** system and, for relief  
image formation)

IT Ketones, uses and miscellaneous

RL: USES (Uses)

(**photopolymer photoimaging** compns. containing  
**photoinitiator** from onium compound and, for relief image  
formation)

IT **Photoimaging** compositions and processes

(**photopolymer**, onium compound-**photoredox** system as  
**photoinitiator** in, for relief image production)

IT Resists

(**photo-**, **photopolymer** compns. containing onium compound-  
**photoredox** system **photoinitiator** for)

IT Electric circuits

(printed, **photopolymerizable** compns. containing onium compound-  
**photoredox** system **photoinitiator** for fabrication of)

IT **Printing** plates

(relief, **photopolymerizable** compns. containing onium compound-  
**photoredox** system **photoinitiator** for fabrication of)

IT 80-62-6 106-91-2 4986-89-4 9003-39-8 25215-62-7

RL: USES (Uses)

(**photopolymer photoimaging** composition containing onium  
compound-**photoredox** system **photoinitiator** and, for  
relief image production)

IT 90-93-7 90-94-8 119-61-9, uses and miscellaneous

RL: USES (Uses)

(**photopolymer photoimaging** composition containing  
**photoinitiator** from onium compound and, for relief image  
formation)

IT 459-64-3 1483-72-3 5667-47-0 102626-88-0

STN search for 10765,797

RL: USES (Uses)

(**photopolymer photoimaging** composition containing  
**photoinitiator** from **photoredox** system and, for relief  
image formation)

L24 ANSWER 43 OF 45 CAPLUS COPYRIGHT 2005 ACS on STN  
AN 1984:581194 CAPLUS  
DN 101:181194  
ED Entered STN: 10 Nov 1984  
TI **Photopolymerizable** material  
IN Baumann, Harald; Ullrich, Oertel; Timpe, Hans Joachim; Weigt,  
Wilfried; Boettcher, Horst  
PA VEB Filmfabrik Wolfen, Ger. Dem. Rep.  
SO Ger. (East), 12 pp.  
CODEN: GEXXA8  
DT Patent  
LA German  
IC G03C001-68  
CC 74-4 (Radiation Chemistry, Photochemistry, and Photographic and Other  
Reprographic Processes)

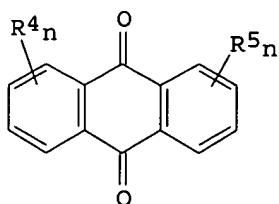
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	DD 208246	A1	19840328	DD 1981-235699	19811214
PRAI	DD 1981-235699		19811214		

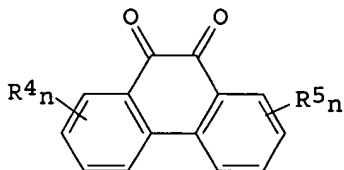
CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
DD 208246	IC	G03C001-68

GI



I



II

AB **Photopolymerizable** compns. for the production of **printing**  
plates and use as **photoresists** are composed of  $\geq 1$  monomer  
capable of cationic or radical polymerization, a carboxyl compound, an  
initiator,  
an activator, a binder, addnl. additives, and a combination of  $\geq 1$   
carbonyl compound of the formula RCOR<sub>1</sub>, R<sub>2</sub>COCOR<sub>3</sub>, I, or II (R, R<sub>2</sub>, R<sub>3</sub> = Ph  
or substituted Ph; R<sub>1</sub> = alkyl, alkoxy, CO<sub>2</sub>H, Ph, substituted Ph; R<sub>4</sub>, R<sub>5</sub> =  
H, halogen, alkyl, aryl, acyl, CO<sub>2</sub>H, alkoxy, sulfonyl, or sulfo; n = 0-4)  
and  $\geq 1$  onium compound. Thus, a polyester support was coated at  
100-160 mL/m<sup>2</sup> with a composition containing an Me<sub>2</sub>CO solution of  
phenanthrenquinone  
(absorption = 1.78 in 5 mm cuvette) 5 mL, s-trioxane 125, glycidyl  
methacrylate 1.25, carboxylated oligomeric  $\alpha$ -methylstyrene 500, and  
p-chlorobenzenediazonium tetrafluoroborate 75 mg, image exposed for 30 s  
to a 200 W high-pressure Hg lamp at 30 cm, and developed in 2% aqueous NaOH to  
give a relief image.

ST carbonyl compd **photoinitiator photopolymer**  
**photoimaging; relief photopolymer photoimaging**



STN search for 10765,797

compn; ketone **photoinitiator photopolymer**  
**photoimaging** compn; anthraquinone deriv **photoinitiator**  
**photoimaging** compn; phenanthrenequinone deriv  
**photoinitiator photoimaging** compn

IT Carbon black, uses and miscellaneous  
Polyamides, uses and miscellaneous  
RL: USES (Uses)  
(**photopolymerizable** compns. containing carbonyl compound  
**photoinitiators** and, for **photoresists** and  
**printing** plate fabrication)

IT **Printing** plates  
(**photopolymerizable** compns. containing carbonyl compound  
**photoinitiators** in fabrication of)

IT Carbonyl compounds, uses and miscellaneous  
RL: USES (Uses)  
(**photopolymerizable photoimaging** compns. containing, as  
**photoinitiators**)

IT Onium compounds  
RL: USES (Uses)  
(**photopolymerizable photoimaging** compns. containing,  
for **photoresists** and **printing** plate fabrication)

IT Resists  
(**photo-**, containing carbonyl compds. as **photoinitiators**  
)

IT **Photoimaging** compositions and processes  
(**photopolymerizable**, containing carbonyl compds. as  
**photoinitiators**)

IT 79-06-1, uses and miscellaneous 106-91-2 437-13-8 459-44-9  
673-41-6 673-48-3 1582-27-0 4986-89-4 5459-38-1 25014-31-7D,  
carboxylated 25053-13-8 25322-68-3 25585-77-7 52754-92-4  
58109-41-4  
RL: USES (Uses)  
(**photopolymerizable** compns. containing carbonyl compound  
**photoinitiators** and, for **photoresists** and  
**printing** plate fabrication)

IT 16423-68-0  
RL: USES (Uses)  
(**photopolymerizable photoimaging** compns. containing  
carbonyl compound **photoinitiators** and, for **photoresists**  
and **printing** plate fabrication)

IT 84-11-7 119-61-9, uses and miscellaneous 131-08-8 134-81-6  
30637-95-7  
RL: USES (Uses)  
(**photopolymerizable photoimaging** compns. containing,  
for **photoresists** and **printing** plate fabrication)

L24 ANSWER 44 OF 45 CAPLUS COPYRIGHT 2005 ACS on STN  
AN 1983:496846 CAPLUS  
DN 99:96846  
ED Entered STN: 12 May 1984  
TI **Photopolymerizable** coatings  
IN Baumann, Harald; Timpe, Hans Joachim; Roth, Christoph;  
Boettcher, Horst; Marx, Joerg; Weigt, Wilfried  
PA VEB Filmfabrik Wolfen, Ger. Dem. Rep.  
SO Ger. (East), 13 pp.  
CODEN: GEXXA8  
DT Patent  
LA German  
IC G03C001-68  
CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic and Other

STN search for 10765,797

Reprographic Processes)

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	DD 158281	Z	19830105	DD 1981-228501	19810323
PRAI	DD 1981-228501		19810323		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
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DD 158281	IC	G03C001-68
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AB **Photopolymerizable** layers are described for the production of relief images for **printing** plates or information recording. These layers, which have improved **photosensitivity**, a high crosslinking rate, and improved mech. characteristics of the crosslinked layer, contain an initiator system which upon exposure forms a fragment that initiates the radical polymerization of an ethylenically unsatd. compound

and

a fragment that in the presence of a coinitiator initiates a cationic polymerization. Thus, an Me<sub>2</sub>CO solution containing glycidyl methacrylate 1.25 + 10<sup>-2</sup>, an acrylic acid-Et acrylate-styrene copolymer 5 + 10<sup>-2</sup>, benzoin iso-Pr ether 1.25 + 10<sup>-3</sup>, and p-methoxybenzenediazonium hexafluorophosphate (I) 1.25 + 10<sup>-3</sup> g/mL was coated on a polyester support, and dried. The required exposure time for this layer was 25 s while a I-free layer showed no visible exposure edge even after a 5 min exposure time.

ST **photoimaging** compn **photopolymerizable** relief;

**printing** plate relief **photopolymerizable** compn

IT Phenolic resins, uses and miscellaneous

Polyamides, uses and miscellaneous

RL: USES (Uses)

(**photopolymerizable photoimaging** compns. with improved sensitivity containing)

IT Vinyl compounds, polymers

RL: USES (Uses)

(polymers, **photopolymerizable photoimaging** compns. with improved sensitivity containing)

IT **Photoimaging** compositions and processes

(**photopolymerizable**, with improved sensitivity)

IT **Printing** plates

(relief, **photopolymerizable** compns. with improved sensitivity for fabrication of)

IT 61-73-4 79-10-7D, reaction products with dian diglycidyl ether

106-90-1 106-91-2 119-53-9 437-13-8 574-06-1 574-09-4 673-41-6

673-48-3 1675-54-3D, reaction products with acrylic acid 3524-62-7

6652-28-4 6652-29-5 21217-83-4 24806-57-3 25014-31-7

25014-31-7D, carboxylated 25053-13-8 25066-97-1 25585-77-7

41996-78-5 57835-99-1 59487-35-3 80112-49-8 83346-20-7

86776-56-9 86812-78-4

RL: USES (Uses)

(**photopolymerizable photoimaging** compns. with improved sensitivity containing)

L24 ANSWER 45 OF 45 CAPLUS COPYRIGHT 2005 ACS on STN

AN 1983:63324 CAPLUS

DN 98:63324

ED Entered STN: 12 May 1984

TI **Photopolymerizable** composition

IN Roth, Christoph; Boettcher, Horst; Weigt, Wilfried; Anton, Elisabeth; Urban, Otto; Timpe, Hans Joachim; Baumann, Harald

PA VEB Filmfabrik Wolfen, Ger. Dem. Rep.

STN search for 10765,797

SO Ger. (East), 12 pp.  
CODEN: GEXXA8  
DT Patent  
LA German  
IC G03C001-68  
CC 74-4 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)  
Section cross-reference(s): 76

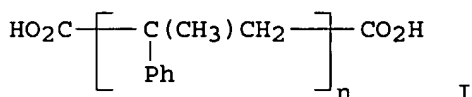
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	DD 155361	Z	19820602	DD 1980-226124	19801216
PRAI	DD 1980-226124		19801216		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
DD 155361	IC	G03C001-68

GI



AB **Photopolymerizable** compds. which adhere well to their support, do not stick, and provide a superior detail in information records, printed circuits, or **printing** plates, because the unexposed areas are completely removable in 0.1-2% aqueous alkaline solns. of 25-40°, contain ethylenically unsatd. **photopolymerizable** compds. 10-80%, a polymerization initiator 3-20%, a phenolic stabilizer 0.01-0.1%, and a pigment 1-30%, as binder an alkali-soluble  $\alpha$ -methylstyrene oligomer with terminal CO<sub>2</sub>H groups (I, n = 2-8) 50-85%. Thus, a mixture of pentaerythritol tetraacrylate 28, benzoin iso-Bu ether 3.7, CAMS-1 72, 2,5-di-tert-butylphenol 0.2 g with a dispersion of C 4% and I (mol. weight 550, acid number 156 mg KOH/g) 8% in Me<sub>2</sub>CO 75 mL and a 3:1 Me<sub>2</sub>CO-MeCOEt mixture 300 mL was coated on a 100 $\mu$  polyester foil, dried, exposed through a step wedge to Hg vapor lamp radiation 20 s at 25 cm, and developed 90 s in 1% NaHCO<sub>3</sub> at 25°. The layers did not stick, and the development left no pigment residues in the unexposed areas.

ST **photopolymerizable photoimaging** methylstyrene oligomer

IT **Printing** plates  
(**photopolymerizable photoimaging** composition for production of)

IT **Photoimaging** compositions and processes  
(**photopolymerizable**, containing  $\alpha$ -methylstyrene oligomers with carboxyl groups)

IT Electric circuits  
(printed, **photopolymerizable photoimaging** composition for production of)

IT 97-90-5 3887-02-3 4986-89-4 15625-89-5 17831-71-9 22499-12-3  
25014-31-7D, carboxylated 84284-99-1 84286-28-2

RL: USES (Uses)  
(**photopolymerizable photoimaging** composition containing)